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BALTIMORE, APRIL 4, 1907.

READ IN FOREIGN LANDS.

The Western Machinery & Stores Co., Hornby road, Bombay, writing to the MANUFACTURERS' RECORD about a letter previously published in this paper, says:

The letter published by Mr. Byramjee of Bombay in your paper, showing the trade of the United States with India, clearly shows that other countries are going ahead. The more and very often this fact is brought to the notice of your manufacturers the better it will be. There is a good deal of inclination to purchase United States products than United Kingdom, but your people do not take advantage of the present opportunity, and this is worst of all. We are trying to give reference everywhere to your country's goods.

We want to know the names of manufacturers of cotton-waste machinery suitable for Indian cotton, and also spinning and weaving mills complete and equipment of workshop tools, as we have to provide complete sets of tools required for workshops in spinning and weaving mills now under construction. Catalogue showing illustrations, prices and discounts are wanted, also complete list of such tools required.

This is but another illustration of the wide circulation of the MANUFACTURERS' RECORD and the great care with which it is read in foreign lands as well as at home.

AN INSULT TO CONGRESS.

A great many people have wondered what influence was bringing pressure to bear upon Congress to change postal rates, as was proposed at the last session. Possibly many congressmen themselves did not know that back of this there is an organized scheme at work purely as a money-making ven-

ture. This scheme is being worked on the basis of the payment from business houses in the way of subscriptions to a fund for the purpose of lobbying in behalf of an increase in postage rates on fourth-class matter, on the ground that if this should be brought about it would be possible to secure a one-cent letter postage. Some years ago the writer had copies of circulars which were being issued for the purpose of securing agents who would quietly and vigorously canvass their communities for contributions of this kind, practically promising to the business men who joined the scheme that by doing so they would be enabled to have their letter postage reduced to one cent. We supposed that some such scheme was back of the movement in Congress last session, but could not get at the facts. We are advised of a campaign which is being made by a man "who is soliciting and, we have heard, is securing hundreds of signatures to a petition to be placed before Congress at the next session advocating the increase of postage rates on second-class mail matter to four cents or eight cents per pound and reducing the rates on first-class matter to one cent per half ounce. This party is also collecting all the money he can from the signers of his petition, the alleged object of the collection being to create a lobby in Washington to see that the measure is passed."

A prominent business man in Chicago who gives us this information states that he absolutely refused to entertain it for one moment, and the MANUFACTURERS' RECORD would think that any other business man of ordinary judgment would know that a lobbying scheme of this kind should be beneath the support of honest and honorable business men.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 108, 109, 110, 111 and 112.

SOWING DRAGONS' TEETH.

Some Southerners do not seem to be able to learn from experience. Cause and effect were so plainly revealed in last summer's Atlanta tragedy that it is hard to understand how anyone could miss the moral, the moral being that agitation of the race question must have a certain end.

But in spite of the fact that the Alabama Legislature took a long recess before it was surprised into fathering a resolution calling upon the Governor of the State to request the other Southern Governors to unite in the appointment of a Southern commission on the relations of blacks and whites, with the "financial sponsorship" of the commission guaranteed in advance and with the salaried secretary presumably selected; in spite of the fact that the Southern Governors were practically unanimous against the commission idea, as soon as the foolhardy project had been exposed "before the time was ripe,"

and in spite of the fact that leading Southern newspapers have emphasized its unwisdom, its principal exponent still clings tenaciously to the scheme. He is now reported as stating that "the organization of all the moral forces of the South in one great body and the appointment of a commission composed of the best and most learned men of the South to handle the problem" is contemplated. Moreover, newspapers here and there are publishing the material for sensational journalism in the utterances of Ex-Governor Northen, with his civic leagues or some such organizations; the lectures of Senator Tillman and the recitations of Booker T. Washington, and are surely sowing dragons' teeth. The experience of Atlanta points to the certain harvest unless an end be made of agitation of the race question. In the interest of the negro, in the interest of the South and in the interest of the whole country, the MANUFACTURERS' RECORD hopes that its contemporaries will be impressed with the wisdom of suppressing the agitation, and the surest means of suppressing it is the exclusion from their columns of discussions of the negro problem, whether the inspiration be the Rev. John E. White, Ex-Governor Northen, Booker T. Washington, Senator Tillman or the little coterie who are again to get into the limelight next week at the tenth "Conference for Education in the South," a manifestation that has done more than anything else in the present century to revive agitation of the race problem.

As Georgia was selected as the forum for the first real send-off for the earlier phase of the Ogden Movement, so it seems to have been selected for this later phase. It has been simmering there for several weeks, and the agitation is now oozing into outside papers. The specimen statements attributed to Ex-Governor Northen and published in the New York Sun of April 2 will do the South more damage in reviving sectional race agitation than all the good intentions of Ex-Governor Northen and others could possibly overcome in a century.

PRESSING NEED OF SOUTHERN IMMIGRATION.

"I would guarantee to sell 500,000 spindles inside of a week if I could guarantee to provide the labor with which to operate the spindles" was a statement made by the Atlanta representative of a leading New England textile-machinery house. And this statement is a fair illustration of the pressing demand throughout the cotton-mill interests, as well as in all other business circles in the South, for labor. It is a rare thing to find a mill that has an adequate supply. The mills which have been most conspicuous in providing the best surroundings for their operatives are now seeing the wisdom of their course through their ability to maintain a fuller complement of labor than mills which have not given so much attention to the improvement of

mill villages and the conditions of life surrounding mill work. The predominant topic throughout the whole Central South is the need of immigration. Men who could largely increase their business interests find all of their efforts hampered by their inability to secure labor, and so there has suddenly sprung up among those who a few years ago thought but little about the subject an earnest desire for a great influx of foreign immigration. Under such conditions there is danger that the South will be misled and fail to secure the best results from its immigration work. It is important that immigration from abroad should be vigorously sought, but in doing this the South must not lose sight of the equally important point of striving to attract immigration from other parts of the United States. This section is already annually receiving in the aggregate 200,000 or 300,000 of the very best class of settlers from the North and the West. Louisiana and Texas and Arkansas and Oklahoma are being especially favored in this respect, because these States and the railroads operating in them have been broad-gauged in their work of sowing the seed for many years out of which they are now beginning to reap a harvest. The Central South has advantages matching those of the Southwest, and the same broad, active spirit which is carrying tens of thousands of people into the Southwest should be made to bring tens of thousands into the Central South. And while such a campaign should be inaugurated, equal attention should be given to bringing settlers in from abroad. Every important Southern port, such as Wilmington, Charleston and Savannah, Brunswick and Mobile, and New Orleans and Galveston, should be striving, backed by the heartiest co-operation of their own States, to secure the establishment of direct steamship lines to Europe. The tramp steamer which takes cotton and other freight from the South to Europe is not adapted to immigration work, nor is the tramp steamer of much value to any port in the development of immigration business. They are the great freight seekers of the world, and whenever freight in sufficient quantity is found at any Southern port the tramp steamer can be had ready to carry it abroad. It is only, however, by the development of regular lines of steamers sailing on regular, appointed days, running boats fitted for immigration business and identified with the immigration traffic, that the best results can be obtained. Years ago the Baltimore & Ohio Railroad, appreciating the importance of regular lines of steamers for immigration and for importation of merchandise, succeeded in bringing about the establishment of a line between Bremen and Baltimore. The result has been a large development of immigration business through this port. It was necessary for the railroad company to take an active part in securing this line and in practically guaranteeing return cargoes until the time when

business would be so well established as to take care of itself. With the enormous exportation of cotton and other merchandise from Southern ports it ought to be easily feasible to secure the establishment of a line of immigration boats not simply to one port, but to half a dozen ports. And it would take half a dozen lines to make any real impression in supplying the great need for enlarged population in the South. Every Southern port able to supply outward cargoes should undertake the development of regular lines of steamers, and out of this competition there will come the survival of the fittest, whether it be due to natural advantages or to the activity and hustle of the people back of the enterprise. It is not, of course, to be expected that the people of different States are going to concentrate their energies upon any one line of steamers or any one port. It would be a mistake if they did so. It would scarcely be possible for any one Southern port to secure business sufficient to justify more than two regular steamships a month, and at best they could not be expected to handle more than 500 to 1000 immigrants each. Put it at 1000, and this would give 2000 a month or 24,000 a year. This would scarcely be a drop in the bucket. Any one Southern State could absorb two or three times that many foreigners every year for the next five years.

Closely connected with the question of labor scarcity must be the development of improved machinery and equipment in order to do by machinery what we are now doing by hand-power. In the iron regions of Alabama under the old system of filling furnaces with coke and ore and limestone 25 to 30 men were needed at each furnace to do the work which can now be done at some furnaces by three men. Labor-saving machinery is doing the work, and the other 24 or 25 men are being utilized for other things. This system, however, does not yet prevail at all Southern furnaces. It only indicates one of the ways in which in the iron regions, as well as in other lines of work, labor-saving machinery must be utilized. The time has come when the South must enter upon a period where on the farm and in the factory machinery must to the greatest possible extent be made to supplant hand-power. With increasing wealth the farmer must use improved equipment. He must learn to produce his crops and to gather them with a smaller supply of labor. In the case of the farmer this will inevitably result in forcing intensive farming. It will result in such close cultivation of a smaller acreage that the aggregate yield will be larger than by the shiftless way pursued by so many farmers in the past of scratching the ground, and barely scratching it, in undertaking to cultivate a large acreage. It will result also in the better care of the land and its better fertilization and the rotation of crops, and in developing a spirit of independence where each farmer will learn more and more to depend upon his own abilities rather than upon the shiftless and thriftless labor with which he has been endeavoring to cultivate his land. The greatest result, however, will doubtless be in the utilization by farmers of more labor-saving tools and implements, and of improvement in dwellings that the labor of the housewife shall be lessened. With modern improvements now made possible to the average farmer the housewife can, where these are utilized, accomplish more at less labor to herself without help than heretofore, lacking

all modern improvements, she could accomplish with the aid of servants.

In this connection an interesting fact developed in a story of conditions at Anderson, S. C., and proved how thoroughly a live community depending upon itself can develop its business interests, increase its prosperity and do away with the curse of the street-corner loafer. In the local columns of a daily paper at Anderson a report was published of a case of a negro loafer which came before the Mayor. Calling attention to the fact that the policeman of the town had for several weeks been watching him and had found that he was without visible means of support and without regular employment, the Mayor berated the culprit and condemned him to work or leave the community, as Anderson was no place for a loafer. The streets of the city indicate at all times that this spirit prevails, that there are no loafers, either white or black. And if Anderson has solved the problem of teaching its people to work and of eliminating from the city those who will not work, it has set a blessed example for others to follow. On the streets of the town there are no idling, loafing boys, white or black, and the popular refrain has in Anderson been changed to "Everybody Works at Anderson, Even Father."

The textile-machinery agent whose statement is quoted above likewise told of the great success now being made in some cotton mills in Texas and of the cotton-mill spirit which is being developed in Oklahoma. "In these States," said he, "there is at present an ample supply of labor. Everybody works. The sons and daughters of the well-to-do people, not content to live in idleness and depend upon their parents to care for them, are all at work, and from the very best class of families the Texas mills and the one recently established at Oklahoma are drawing an ample supply of labor. In the Southwest it is quite evident that there is to be a great development in cotton manufacturing. That section in the very heart of the cotton-producing region, with a supply of labor that is being enormously increased by the great influx of population from the West, will soon take up cotton-mill building on a large scale. And in connection with the cotton-mill situation generally there is an interesting and important development now under way which is vastly enlarging the consumption of cotton. The increasing cost of lumber has so advanced the cost of coopersage that the cement-makers of the country are rapidly turning from barrels to cotton bags in which to pack their product. Millions of cotton bags are now being used, and many millions more will soon be added to the number."

As the Portland-cement industry has grown from an output of 8,000,000 barrels in 1900 to 46,000,000 barrels in 1906, and as the next five or six years will doubtless see even these great figures doubled, it can readily be seen that the use of cotton bags for cement means a very great addition to the consumption of cotton, especially of the lower grades and waste cotton.

A CHANCE TO UTILIZE THE SOUTH'S WASTE MATERIAL.

An illustration of the awakening spirit in textile life of New England is an announcement that 50 acres of land has been secured in East Boston on which four cotton mills, to cost about \$5,000,000 and to employ from 4000 to 5000 persons, will be established. The capacity of each mill will be 60,000

spindles. A central power plant will furnish the electricity with which to run the machinery and light the mills. Mr. E. N. Foss, who is actively identified with this movement, is the president of the Burgess Mills of Pawtucket, recently completed at a cost of about \$1,000,000, now running 60,000 spindles. Here are five new mills built and to be built by the energy of one man, to have an equipment aggregating 300,000 spindles. This is an illustration of the new interest which within the last year or two has been awakened in New England looking to the building of new cotton mills and to the re-equipment of mills already established. These facts point straight to the necessity of the South broadening its development of cotton-mill interests. There are some sections in which the supply of labor is fully utilized, but there are other sections in which labor is still available, as stated in a letter in this issue from Atlanta telling about conditions in the Southwest. If Massachusetts, which already has about as many spindles as the entire South, finds it profitable to very greatly increase the number of its spindles; if Manchester, England, can afford to add 6,000,000 spindles during the last 12 months to the 50,000,000 which it already had, how important is it that the South, controlling the world's cotton production, should enlarge its cotton-manufacturing interests? This can be done either by the development of cotton spinning in portions of the South in which this industry has been but slightly advanced, or it can be done by drawing to the present cotton-mill centers a great increase in the supply of labor. With all the progress that has been made it is nevertheless a fact that there is too large a number of people in the South who ought to be at work who, from one cause or another, are not at work, usually from thriftlessness or from a lack of appreciation of the value and importance of work.

If the South can devise ways and means to more fully utilize the population which it now has, even much of the white population which is not fully and regularly employed, it would very greatly increase its productive power in all lines of manufacturing, even while struggling to increase its population by immigration. No one can pass through the average Southern village or town or watch the crowds that gather around the stations without being struck with the great amount of what may be called waste material or unutilized material in the shape of idlers or loafers who for their own good and the good of the community ought to be at work. If all of this material could be utilized in adding to the supply of labor the South could add some millions of spindles to its cotton-mill equipment, increase its production in other lines of manufacturing and still not lessen its agricultural output. The energy of the teachers and the press and the public men of the South should be given largely to the training of this large class of idlers to work. Infinitely better for humanity and for every interest of the South—social, religious, educational and business—would be a campaign of this kind in place of the foolish and unwise discussion of the race question with which some portions of the South are from time to time so sadly afflicted. But harking back to cotton! The cotton-mill building in Boston and the general activity in the textile interests of that section and the activity in Manchester bring the proof, if one were needed, of the world's in-

creasing demand for cotton goods, an increase which will surely test the ability of the South under the present conditions to increase its cotton production commensurate with the world's increasing cotton requirements.

"TREMENDOUS GROWTH AND EXPANSION."

Commenting upon the showing made by the annual reports of four prominent railroad systems in the South, the *Wall Street Journal* says:

The figures speak for themselves. They tell a story of tremendous growth and expansion. Until a comparatively recent date the South has been hardly more than a producer of raw materials; now its participation in manufacturing is becoming more active, and to this factor, more than any other, may be ascribed the growing prosperity of its people and its railroads.

The reports considered are those of the Southern Railway, the Louisville & Nashville Railroad, the Atlantic Coast Line and the Seaboard Air Line Railway. Each of these shows a much larger volume of business than it had five years ago. For instance, the freight earnings of the Southern Railway in the fiscal year ended June 30, 1906, were \$36,141,547, while in 1902 they were only \$24,942,460. The passenger earnings of the same road in 1906 were \$13,259,113, and in 1902 they were \$9,746,193. The freight earnings of the Louisville & Nashville Railroad in 1906 were \$31,536,207, and in 1902 they were only \$22,772,176. The road's passenger earnings in 1906 were \$8,985,216, as compared with \$6,217,803 in 1902. The Atlantic Coast Line earned from freight in 1906 \$17,374,526, and in 1902 \$5,978,109. The company's passenger earnings in 1906 were \$5,436,173, and in 1902 they were \$1,753,813. But it must be remembered that some of the increase in the Atlantic Coast Line was due to the absorption of the Plant system since 1902. The Seaboard Air Line freight earnings in 1906 were \$10,775,580, and in 1902 they were \$7,905,126. The passenger earnings of the road were \$3,235,892 in 1906, as against \$2,063,592 in 1902. Summing up, it is shown that the freight earnings of these four systems in 1906 were \$95,827,860, as compared with \$61,597,871 in 1902, a gain of \$34,229,789, or over 55½ per cent. The passenger earnings in 1906 were \$31,088,462, an increase of \$11,307,061 over 1902, or more than 57 per cent. The increase of the total gross earnings was nearly 56 per cent. While there has been a slight increase on one or two roads in the average rate per ton-mile and in the average rate per passenger-mile, it is so small that for purposes of comparison it may be regarded as having practically no effect upon the totals. In reference to the ton-mile rate advance, it is further said that an increase in the amount of high-class freight carried accounts for it.

The ton-mileage and passenger-mileage statistics reflect quite as strikingly the increase of business of the railroads as do the reports of earnings. It is shown that the Southern Railway's ton mileage in 1906 was 3,886,314,181, as compared with 2,678,308,627 in 1902, and the passenger mileage of the company in 1906 was 549,518,645, as compared with 427,841,247 in 1902. The Louisville & Nashville's ton mileage in 1906 was 3,925,707,333, as compared with 3,072,503,736 in 1902. The company's passenger mileage in 1906 was 362,745,093, and in 1902 it was 263,429,527. The Seaboard Air Line's ton mileage in 1906 was 961,550,942, as compared with 740,169,229 in 1902, and its passenger mileage in 1906 was 135,826,-

215, as compared with 87,559,985 in 1902. For the Atlantic Coast Line comparative figures are not given, but that company's ton mileage in 1906 was 1,344,548,341, and its passenger mileage was 211,991,535. The increase of business of the roads was accompanied by not only an extension of trackage, but by the purchase of more locomotives and cars. These four systems since 1902 have increased their equipment by buying 1021 locomotives, 37,863 freight cars and 603 passenger cars. The average mileage operated by them has increased over 4000 miles, part of this, however, being due to the acquirement of the Plant system by the Atlantic Coast Line.

Considered either as a whole or in part, these figures speak eloquently of the great development throughout the South and of the success attending commerce and industry in this section. That the predictions made in the past by the MANUFACTURERS' RECORD concerning the future of the Southern States were safe and conservative is fully demonstrated by the facts presented in the annual reports of these railroads.

HYDRO-ELECTRIC DEVELOPMENT

The General Electric Co., in giving some details regarding recent large contracts, says:

"What is recognized as a signal victory in the development of South America is the fact that the Government of Brazil has just granted permission to Messrs. Guinle & Co. of Rio de Janeiro to sell electricity in the capital city, as well as other important cities in the republic. The contract for light and power in Nietheroy and other cities along the proposed transmission lines has already been let.

"The initial electric-power sources will include several hydro-electric stations just being completed on various waterfalls controlled by Guinle & Co. These have an aggregate capacity of some 50,000 horsepower. The electrical equipment was furnished by the General Electric Co. of New York. It is expected that work on the transmission lines will be started next June."

One of the striking facts of the business world is the wonderful development which is taking place in the utilization of water-powers for hydro-electric stations. Even Constantinople, a city of 1,250,000 people, without electric light or electric power except in the palace, and we believe in the Ottoman Bank, is now to be lighted and street railways probably operated by electricity through a concession recently granted by the Sultan to German capitalists, who will develop some great falls not far from Constantinople. We are doing large things in the South, and, for that matter, in the entire country, in the way of water-power development, but we must not imagine that the rest of the world is not following suit. The time is rapidly coming when practically every power throughout the South will be utilized. Heretofore many of the smaller powers could not be utilized to advantage, but now almost every power will become available by transmitting the current to central points for concentration of energy.

GREENVILLE'S PROGRESS.

The annual pay-roll at Greenville, S. C., aggregates \$2,300,000, not including the businesses of a number of small contractors and firms and individuals employing small numbers of day laborers. This fact was brought out at the quarterly meeting of the Greenville Board of Trade last week, at which the committee on statistics showed that between 1900 and 1906 the assessed values of property in Greenville

county had increased from \$7,177,555 to \$11,918,570, and in the city of Greenville from \$1,560,225 to \$2,414,310. In the calendar year 1906 the railroads handled 17,149 carloads of freight from Greenville, an increase of 2937 carloads over 1905, and building permits were issued to the value of \$307,363 in that year.

ABATEMENT OF SMOKE IN CITIES.

The ever-increasing use of soft coal in cities and the consequent pollution of the atmosphere by soot and sulphur fumes is attracting serious attention in many communities. Efforts to reduce or eradicate the nuisance by the use of smoke-consuming devices have been made, but they have generally served mainly to demonstrate that it is almost impossible to burn bituminous coal in its raw state without making smoke. In a number of cities, notably Chicago, Boston, Milwaukee and others, the solution of the smoke nuisance has in part been made by the separation of soft coal into non-smoking coke and gas in by-product coke ovens. The by-products, consisting of ammonia, tar, benzol and cyanide, are in themselves so valuable as to enable the owners of such by-product plants to sell coke as cheaply as the raw coal could have been sold for. This solution is so complete and so successful, commercially and economically, that it is quite probable that within a few years it will be in general use in many of the soft coal burning cities, thus doing away with the present methods of discharging clouds of soot into the air and creating a smoke pall or cloud injurious to health and destructive to all kinds of property. There are many who believe that the present smoke condition in many cities will soon be looked upon as a relic of barbarism. With the possibility of the by-product ovens of manufacturing coke practically without cost, by reason of the profit on the by-products, it would seem to be only logical that all the great manufacturing cities of the country would soon secure the establishment of large by-product plants. In this way these communities would secure the benefit from smokeless factories and an abundant supply of coke as fuel, and the air, which is now so vitiated with a pall of smoke in many cities, would be restored to its original purity. Certainly the matter is one well worthy of the heartiest co-operation on the part of every manufacturing city of importance in the country. The struggle against smoke is not, as has sometimes been claimed, a struggle against factories. It is possible under these modern improvements to vastly advance the manufacturing interests of a city, and yet do it without smothering the people of the city with a pall of smoke, dust and dirt. We are entering upon a period in which, through the development of the by-product oven and the utilization of electricity generated either by water-power or in central power stations, it ought to be possible to enormously expand the manufacturing interests of the country and at the same time lessen the discomforts connected with the smoke nuisance.

NASHVILLE WOODWORKING.

Some incidents of the past week recorded by the Nashville *Banner* are interesting reflections of the increasing industrial activities of Tennessee's capital city. Three stove works there ran during the week at the rate of about 250 stoves a day, orders coming from Florida, Louisiana, Texas and more distant States. Fourteen carloads of furniture were sent to Texas, that State being one of a dozen now receiving shipments from the city which five years ago was practically making no shipments, and an indication of further advance in that direction is had in the intentions of a Michigan manufacturer to establish a large

chair factory at Nashville. Wooden mantels are the product of another industry of the city, the one plant making them having recently been enlarged, while retail merchants of house-furnishing and office-furnishing goods are considering the organization of a company for the manufacture of office furniture, school seats, church pews and refrigerators. For such undertakings Nashville is admirably situated, both as regards accessibility to hardwood and metal supplies and also in respect to facilities for prompt distribution of the finished goods.

THE BIRMINGHAM DISTRICT.

Pig-Iron Not Available for Cash Orders.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., April 1.

For some time back these letters have called the attention of readers to the growing scarcity of pig-iron here and predicted that there would be a scrambling among the buyers for what little that might be available for the spot or cash market. We are pretty near that condition now. A broker who is well posted and in the whirl of the trade said to the writer: "Your predictions are coming true. I am turning down cash orders because I can't get the iron to ship spot." One influential interest counted up 14 orders in three days and some more not executed because they were spot or nearby delivery, and that kind of iron was not available. Spot iron is very much in demand, and it finds very ready buyers at \$23, \$23.50, \$24 and \$24.50. The higher prices indicate special analysis qualities that commend it to the buyer. Two lots of 450 and 300 tons of this iron brought \$24.50, "shipment soon as possible," in second quarter. No sale was reported the past week below \$23 for spot or nearby delivery. For the second quarter delivery one sale was reported on basis of \$21.50 for No. 2 foundry, and some on a \$22 basis, while one lot of 2000 tons went at \$21.75 Birmingham basis. May and June delivery went in one instance at \$21.50, and another 400-ton lot went at \$21.50 for June delivery. For the third quarter some sales were reported on the basis of \$19.50 for No. 2 foundry, but they were limited in number and volume. There was one sale for equal delivery in August, September and October on a \$19 basis. Some sellers are declining propositions for third quarter delivery and are switching to delivery for last half. For this delivery there was a very fair trade. One sale was on basis of \$19.50. It was analysis iron and covered 150 tons. Another lot of 1000 tons sold on an \$18.50 basis, while 500 tons went on a \$19 basis in three lots. Other lots from 500 tons to 100 tons went, some on an \$18.50 basis and some on a \$19 basis. Two lots of 200 tons each of No. 4 foundry went at \$17.50 for fourth quarter. For the second quarter \$19.50 was obtained for this grade for 100 tons. Mottled iron was placed at \$18 for 300 tons second quarter. These quotations and sales show that there is no large business being transacted in iron. But it is owing not to the lack of demand, but to the lack of supplies to fill the demand. And there is nothing now within the range of prophetic vision to better these conditions in the near future. The demand must "slump off" before conditions of the market favor its buying side.

A few weeks ago these letters estimated the amount of iron in the furnace yards awaiting shipment to buyers at 75,000 tons. It was then argued that when this iron moved it would ease up the demand and relieve the strain under which buyers suffered. Fully half that iron has gone forward and the other half is being moved every day. But there is not that easement in the demand that was predicted. From

the way that spot and early delivery iron is being sought there can be but one sensible conclusion drawn, and that is, that the requirements of melters of iron for the second quarter have not been covered. Their necessities will lift prices as we progress into the current year.

The Woodstock Iron & Steel Co. is now operating one of its furnaces. It had a good "send off," and is sanguine of satisfactory results. Before the summer is well on both its furnaces will be in regular operation.

Scrap iron is in good demand and strong for castings and stove plate, and there are other changes as reported by the Alabama Warehouse & Storage Co. as here given:

Old iron axles, \$24 to \$25.
Old iron rails, \$23.50 to \$24.
Old steel rails, \$15.50 to \$16.
Old car wheels, \$20.50 to \$21.50.
No. 1 railroad wrought, \$19.
No. 2 railroad wrought, \$16 to \$17.
No. 1 country wrought, \$16.50 to \$17.
No. 2 country wrought, \$14.50 to \$15.
No. 1 steel, \$14 to \$14.50.
Machinery castings, \$16.50.
Stove plate, \$14.
Borings, \$10 to \$10.50.
Cut boiler, \$13.

For rails the demand is greater than the supply, and prices given are approximate value: Relay standard rails are \$33. New 60-pound rails are much belated in delivery. Light rails, say 12 pounds, are \$2, while 16s are \$1.95, 20s are \$1.90. For car lots deduct \$1 per ton.

J. A. Lum & Co. handle machinery extensively, and they report a large and urgent demand for sawmill machinery, while ginning machinery is rather quiet. Other kinds are normal as to demand. In electric machinery and appliances for saving labor all the improved methods are being introduced and adopted, and are gradually adding to output of mines and diminishing cost of production. As an illustration of this progressiveness the Empire Coal Co. is installing 15 of the Sargeant cutting machines and a complete up-to-date new haulage system that will double its coal output. After June it will mine 1000 tons per day, which is just double what the old system produced.

The car situation is improving, in that more cars are being moved. But all of the railroads are in this respect not on an equality of results. To be plain about it, those roads that are manged in a business-like way are surmounting their difficulties, while those with "fuss and feathers" as a guide are yet floundering in "the slough of despond." Some of them need a transfusion of new blood. The water-works has entered for record a mortgage of \$5,000,000 to the Trust Company of America at New York on all its property in and adjacent to Birmingham, to cover a bond issue for that amount. It is redeemable in gold, and the proceeds are to go largely for purchased land and its adaptation for a great reservoir to insure good water, and plenty of it, for Birmingham, not only for present needs, but for future needs. The company is anticipating what is as yet simply in the womb of time.

The Ensley authorities sold during the past week \$35,000 of school and \$55,000 of sewer bonds at par and accrued interest. Steiner Bros. were the purchasers. The latter also sold the Charleston block, in the heart of Bessemer, for \$75,000. But a few years ago they bought it for \$25,000.

News has come to us to the effect that the steel mill at Ensley will have such an overhauling that its capacity will be doubled and reach 600,000 tons of rails per annum. It involves a large expenditure of money, estimated at \$14,000,000. The improvements now under way will, when completed, advance the Ensley mill

to the third in capacity in the United States.

The test of the validity of the drastic legislation passed by the Legislature is now being made before the United States Circuit Court. The railroads have pooled their issues practically, and a big legal battle will result that will make the case famous for all time. The ablest legal talent in the State is represented on one side or the other, and it will be a celebrated case, and often quoted down the corridors of time.

High officials of the Westinghouse Company were here the past week to examine inducements for location of office and works. No definite decision has yet been promulgated, but it is understood a branch of the system will be located here.

J. M. K.

[Special Dispatch to Manufacturers' Record.]
Birmingham, Ala., April 3.

March opened with 75,000 tons of iron in yards here waiting shipment to owners. This amount has been so reduced that 25,000 tons is the approximate amount in furnace yards now, and it is being diminished every day. The time demand for iron this week shows an increase, and sales for last half of year delivery and for last quarter continue to be made at \$18.50 and \$19 basis. Spot or cash iron is growing scarcer, and in frequent cases orders are being turned down because iron to supply them immediately is not available. Second quarter iron is in same condition. There have been several sales of good-size lots of last half of year iron, and spot iron finds ready buyers from \$23 to \$24. Sellers anticipate that second quarter iron will gradually advance to price of spot iron. Market strong, and looks higher.

J. M. K.

Kentucky-Tennessee Oil Field.

[Special Cor. Manufacturers' Record.]
Barboursville, Ky., April 1.

Within a week Kentucky crude oil of the better class advanced 31 cents per barrel, this being a rise unprecedented in the history of the field. Early last week the Standard Oil Co. announced a 15-cent advance, the price being raised to \$1.04 per barrel. This was followed last Friday by a 16-cent advance, bringing the figures up to \$1.20 per barrel. When the market takes an upward turn two and four-cent advances are usual; a five-cent advance is rare, and operators, while greatly elated at the sudden change for the better, are at a loss to explain the cause. Many attribute it to the fact that independent interests have lately entered several of the divisions and have been making large purchases of crude oil at prices three cents higher than those the Standard quoted.

Until the advances of last week Kentucky crude oil of the better class commanded 85 cents for over a year. Two years ago the dollar mark was reached, but the price now prevailing is the highest for nearly three years, and as a consequence operators in the divisions affected by the rising market are doing their best to bring out the maximum production of wells. Old producers which were abandoned as unprofitable when oil commanded 85 cents are being renovated and put to work, and, stimulated by the better prices, many operators are preparing to drill extensively on old leases. All the fields of the State except the Bath-Rowan division produce the better grade of oil, and if the high price of oil is maintained there will be a great expansion of drilling during the spring and summer.

The Standard Oil Co.'s pipe lines extend to all the producing fields of Kentucky, 10 in number. An extension was made last month to the new field of Clinton county, in lower Kentucky. It is estimated that the Standard has invested

\$2,000,000 in building pipe lines and drilling wells in Kentucky.

Last year independent concerns began to purchase Kentucky crude oil, and in both the lower and upper fields of Kentucky have tank-car lines and short pipeline extensions. The Indian Refining Co., Georgetown, W. Va., has been refining Kentucky crude oil, and has also drilled extensively in several divisions.

In the Bath-Rowan district, comprising what is known as the Ragland field, 62 cents per barrel is now paid for oil. When developments were first started there the Standard's producing branch purchased the holdings of independent concerns.

March operations were confined pretty closely to the developed fields. Wayne county was the first in results. Among producers drilled in that county are several listed as 100-barrelers. That field now contains about 20 drilling rigs, several having been erected during the past week. A feature of the month was the extension of a market to the new Clinton county field, adjoining the Wayne and Cumberland county divisions. The Standard has principally developed that section, and owns a number of producing wells. The field has started out with a good showing, and the construction of a pipe line to the wells will cause the adjoining territory to be developed.

An aggregate of nearly 18,000 barrels weekly was produced by the various high-grade fields of the State last month. The warm weather and higher prices are expected to greatly increase this showing.

W. S. HUDSON.

TULSA OIL AND GAS.

One Hundred Wells Brought in in Three Months.

[Special Cor. Manufacturers' Record.]
Tulsa, I. T., March 28.

The developments in oil and gas in the vicinity of Tulsa are simply astounding. In December last your correspondent was here and found a hopeful community imbued with the belief that the millennium was near at hand. Today he finds the community happy in the knowledge that their hopes have been realized—that the bird in the bush is now the bird in hand.

Since December 100 splendid oil-producing wells have been brought in, together with several seemingly inexhaustible gas wells. The larger number of these wells are south of the city, the balance on the north, all within five or six miles of the corporate limits. Fall 2000 men are employed in the oil fields, and the number is being rapidly increased from day to day.

Two new pipe lines, both having their inception in the Glenn pool field, one with its terminal at Port Arthur, the other at Houston, Texas, are under construction and being pushed with all possible vigor, while the pioneer line, the Standard, is laying additional lines to connect with its Kansas line, thus leading its products directly to the refinery at Whiting, Ind. These several companies also have in operation and under construction 190 35,000-barrel tanks. These tanks are being filled with surplus oil as rapidly as completed. Their total storage will cover 6,825,000 barrels, all of which will come in as taxable property within the next six months. The oil fields of Tulsa are served by five railroads, the A. T. & S. F., the A. V. & W. (Rock Island) Frisco, Midland Valley and M., K. & T.

In the matter of natural gas the Standard was the pioneer company, and in introducing its gas charged 20 cents per thousand for domestic and for factory six to seven cents. A new company reduced the price to 16 cents for the former and four cents for the latter. The Standard came back with a flat offer of five cents, with a threat to make gas free. At this point the

citizens took the matter in hand, formed a company with a capital stock of \$250,000, bought out the new company, which patriotically put in the plant and franchise at actual cost. It is the purpose of this company to buy land upon which to locate factories at nominal cost and to furnish gas for factory purposes at from two to four cents per thousand, according to amount consumed, and to supply domestic at the lowest possible prices. Counting the population of Tulsa at 14,000, the capitalization of the new company foots up, say, \$20 per capita.

Tulsa also has beds of splendid coal within easy hauling distance, and while none of it is being actually mined, many tons of surface or scraping coal, possibly 400, are loaded daily for shipment.

The leading cities of the Indian Territory all comprehend that their continued advancement must depend upon manufactures. Tulsa is after the plum, and, in view of the natural resources within her immediate bailiwick, it would seem that her chances for becoming the great city of the Indian Territory are fully up to the average.

F. M. P.

ROCK HILL SEWERAGE.

Work of Improvement in the South Carolina City.

Rock Hill, S. C., has awarded to Solomon-Norcross Company, civil, structural and hydraulic engineers, of Atlanta, Ga., the engineering work in connection with sewerage and with other improvement work in the town.

Rock Hill is one of the most enterprising, up-to-date manufacturing towns in the Piedmont South. It is near the Southern Power Co.'s development, is 657 feet above the sea and is surrounded by a fertile country. Its citizens are public-spirited. Real estate is beginning to increase in value, business interests are on the boom, new cotton mills are being built. The following-named gentlemen represent the committee on public improvements: Messrs. J. M. Cherry, chairman; J. W. O'Neal and J. F. Reed. They are quoted as saying: "We want a city of 50,000 inhabitants, and we want public improvements second to none."

The Solomon-Norcross Company is composed of G. R. Solomon, C. E., a Macon (Ga.) man originally, but in recent years connected on municipal engineering work in the North, who is the senior member, Mr. Solomon is a graduate of Rensselaer Polytechnic Institute of Troy, N. Y. Mr. Norcross is an Atlantan and a graduate of the Georgia School of Technology, who has spent a number of years in the North, and their organization of engineers is as complete and competent as any in the South. The Rock Hill sewerage system will require special care in its design, and the work has already commenced.

Looking for Industries.

Editor Manufacturers' Record:

I have read with a great deal of interest the article of Mr. T. G. Pool of Virgilina, Va., and find our town in the same condition as Virgilina. We have labor, both men and women, white and colored, but no manufacturing enterprises. Our people would gladly take stock in any reputable enterprise, would donate sites, etc. We are fortunately situated as to transportation facilities, having both water and rail routes, and we are in a position to quote a very low rate of freight to almost any point. Our people would gladly entertain a proposition for a cotton mill, a hosiery mill, a planing mill, a furniture factory or a pants factory. There have recently been organized here a buggy factory and a peanut factory, which we hope to get into full operation by the fall. Mr. Eli Gurgans can furnish information about the

peanut plant, and Mr. T. J. Smith is an officer in the buggy factory. We expect also to put in a steam drying plant to handle leaf tobacco, which we think will be ready by August 1.

Our people are very much interested in a trolley line from here to Washington, N. C., to connect there with the different lines of railroads and steamboats. We hope to see this accomplished in another year or two. We have a fine farming country, with lands especially adapted to cotton, tobacco, peanuts and truck of all kinds, two strong banks, well officered, and one large veneer plant, with room for another one, as we are favorably situated in that respect, having millions of feet of timber adapted to the purpose.

W. T. MEADOWS.

Williamston, N. C.

Barge Line on Mississippi.

Articles of incorporation have been filed in St. Louis, Mo., for the Mississippi River Barge Line, to operate steamboats and barges between St. Louis and New Orleans. The company is capitalized at \$50,000, and negotiations are said to be pending for the purchase of towboats and barges, operations to begin as soon as these are acquired. Incorporators of the company are Messrs. Thomas Warren of the Warren Commission & Investment Co. of St. Louis, Daniel P. Byrnes and J. P. Wagner. Referring to the purposes of the line, Mr. Warren is reported as saying that steps have been taken to secure steel barges, each with a capacity for carrying 100,000 bushels of wheat on a seven-foot six-inch draft, and 140,000 bushels on a nine-foot six-inch draft. Towboats will be provided, each with a capacity of handling five barges fully loaded downstream and one-third loaded upstream.

Wanted at Key West.

Mayor George L. Babcock of Key West, Fla., writes to the MANUFACTURERS' RECORD as follows:

"Opportunities that seldom present themselves are at Key West, Fla., for men of small capital who want a place where they can get cheap labor. There are 22,000 people here and 52 cigar factories. The sponges caught here are of the best quality, and there are plenty of men here to catch them, but few vessels can be had to go after them and fewer men can be found to fit the vessels out for the voyage. We have no fish dealers to ship to inland cities fish of the finest kind caught from the shore of the island for a distance of 90 miles. We have but one canning factory, and no hat factory or clothing factory, no broom works and no piece-goods shop in the tinware line. Most every article used, even vegetables, come from New York city."

Texas Iron Industries.

A dispatch from Rusk, Texas, says: "Messrs. F. W. Arnold and E. P. Yates, Hartford, Conn., capitalists and stockholders in the Star and Crescent furnace, have purchased the furnace, pipe works, hotel and 14,000 acres of land at New Birmingham, and will re-equip the furnace, enlarge the pipe works and put them in operation as quick as men and money can do it. Both men have just returned from New York, where they closed the transaction with James Mahoney for the purchase of this property. Mr. Yates says the purchasers intend to add other industries, mentioning a rolling mill and cotton-tie factory."

The West Virginia Hardware and Supply Dealers' Association has elected Messrs. J. L. Hawkins of Huntington, president, and Ernest Howell of Charleston, vice-president.

THE TRANSPORTATION CRISIS—II.

By LEWIS M. HAUP.

[Written for the Manufacturers' Record.]

The first permanent settlement of the English was made under the reign of James I at Jamestown in April, 1607. Under their charter the colonists were permitted to export free of duty whatever was necessary from England for a period of seven years, and to engage in free trade with foreign nations, as well as to levy a duty on imports for the benefit of the colony. The extent of any settlement was limited to 50 miles each way along the coast and 100 miles inland, making an area of 10,000 square miles, so that the settlements were not within easy supporting distance and were only accessible by water.

Under these provincial governments and the aggressions of foreign powers, augmented by the animosities of the native tribes, the growth of the colonies was very precarious, and little could be done to improve the lines of communication save by such local efforts as were within the resources of the more densely-settled communities.

Thus as the population expanded along the lines of least resistance and greatest resources the avenues of communication were opened up by the localities interested in the traffic without awaiting the passage of laws from the general government and the collection of revenues, and their subsequent distribution for such local constructions, in all parts of the Union. Had this policy been enforced the development of the resources of the country would have been seriously delayed.

The result, however, has been remarkable in the opening up of the common roads and waterways of the nation prior to the Civil War, and the unparalleled development of the railroad system of today, with its enormous tonnage. But this tonnage has reached such magnitude as to have surpassed the capacity of the railways, and calls for still further improvements in the means of transportation.

Curves of Progress.

It would appear that too much attention has been given by traffic managers to soliciting trade and to details of administration, rather than to making timely provision for the normal growth of the tonnage which results from the increase in population and the industrial possibilities of an enlightened people.

If the railroads cannot handle the tonnage of the present, what is to become of that of the future, when the population is increasing at so rapid a ratio? It is not appreciated that by the year 1935 the enumeration of the last census will have doubled, while the tonnage produced by 150,000,000 people, requiring a longer average haul to reach the seaboard, will be vastly increased. There is no other possible relief in sight than the rapid opening of the waterways wherever and however possible, and yet the Government is lethargic and unwilling to open the door for the general development of these avenues of trade.

An examination of the population curve* will convince the most skeptical of the

tection and contraction work the commission has, however, kept in mind that the permanent improvement of the river is contemplated by the organic act, and experiments are continually being made looking to the best use of available material and the development of appliances and methods which may be economically and effectively employed when Congress shall provide for such systematic improvement."

The organic act referred to was passed June 28, 1879, and it directed the commission "to report in full upon the practicability, feasibility and probable cost of the various plans known as the jetty system, the levee system and the outlet system, as well as upon such other as they may deem necessary." And thus it appears that after the lapse of a quarter of a century and the expenditure of probably more than \$50,000,000 the commission is waiting for Congress to provide for some systematic plan of procedure, while the tentative experiments are continued.

Congressional Policy.

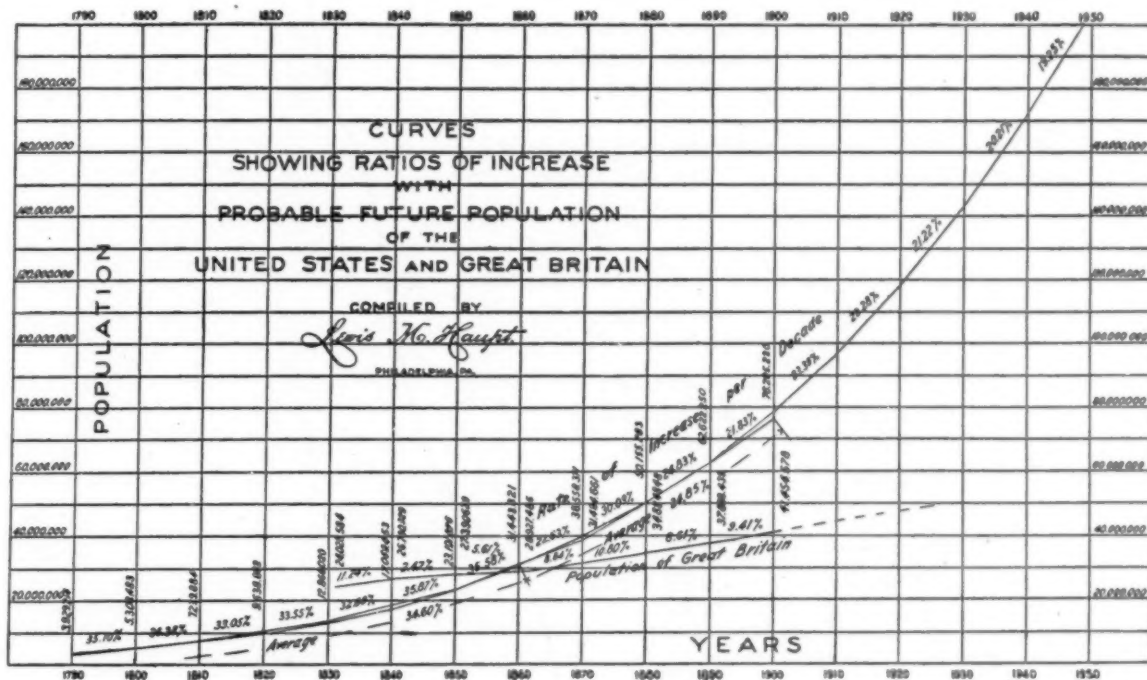
Concerning the policy of the committee on rivers and harbors, the chairman stated to a delegation representing States bordering the Missouri river, in 1900, that "the traffic is very light, and the question has arisen whether we are justified in continuing the appropriations for that stream. * * * We find that the appropriations for the Missouri have been expended very largely merely for the purpose of protecting the banks. * * * We question whether it is proper for this committee to bring in appropriations for that purpose."

Certainly if revetting the banks improved the navigation there could be no question as to the appropriations, yet the Missouri River Commission was abolished because the results secured were not commensurate with the expenditures. In this connection it may be in order to note that while the railroads in this territory were gradually appropriating the traffic of the river, the latter retaliated by encroaching upon the right of way of the railroads and threatened to cut a new channel and to leave the expensive bridges in the air. To avoid this calamity the railroads were compelled to resort to bank revetments for some miles to protect their property, not to improve the navigation, and it is reported that "up to this date (January, 1907) all the protection work, including the dike built by the Government, has failed, while all that built by the railroad, except the upper and lower ends of the 1889 revetment at Cambridge, has stood."

The appropriations made in the present bill for the Mississippi are "for the building of levees and for surveys * * * as shall best improve navigation." Also for the building of the necessary dredgeboats as may be required to obtain and maintain a navigable channel 250 feet wide and 9 feet deep at all seasons of the year.

Thus the policy of creating channels by dredging by plants owned and operated by the Government, under the eight-hour law, is rapidly being extended, and to compete with which contractors are obliged to increase their bids or retire from the business.

In short, the sum of \$32,000,000 is appropriated for a continuation of terminal works which have been under way for from 20 to 50 years, or in efforts to secure channels by dredging which have no protection from the constant forces which cause their deterioration, and for which the results are but transient.



imperative necessity for immediate action in this direction. A casual examination of the last Rivers and Harbors Act, approximating \$90,000,000, just passed, will serve to show how little actual relief the domestic commerce of the country receives from this, the largest bill ever enacted for the purpose. The report of the committee states that \$51,444,674 are to be applied to projects and works requiring more than \$1,000,000. Of these amounts, over \$20,000,000 are for seaboard terminals, where transfers are made, so that they cannot aid in the carrying capacity of the railways by the segregation of the freights, but rather augment the accumulations at the principal ports by the increased demand for the larger cargoes of vessels to be laden without delay.

More than \$12,000,000 are for the improvement of the Mississippi river, of which it is stated that the most conspicuous feature of the entire Southern country, as observed by the president of a Western university, was "not so much the enormous productivity of that section as the total absence of any commerce on the river."

The condition of that great artery of trade is shown by the annual report of the Mississippi River Commission for 1903, in which it is said that "systematic work, which has for its object to permanently locate and deepen the channel, has not been practicable under existing conditions. In the limited extension and repair of bank pro-

For the interior waterways \$6,200,000 goes toward an additional canal and lock at the Sault Ste. Marie, and \$6,670,950 for the Detroit river to enlarge the channel, while the Ohio, the Black Warrior and other rivers have secured over \$6,000,000 between them.

Then follows some \$17,000,000 for lesser works distributed between seaports and rivers, and \$5,000,000 for new projects, of which \$1,211,000 is for an approach to a proposed harbor where there is no commerce nor any work in progress which is awaiting completion.

This brief analysis would indicate that the greatest amount of this bill is for transfer points, where the freight must of necessity be stored or transhipped, and for temporary work, which requires constant appropriations for maintenance, so that the actual transportation of freights by means of the interior waterways of the country, save on the great lakes, will not be materially enhanced by these allotments from the public treasury. Even the Ohio and the other interior rivers are isolated improvements, not continuous, and disconnected with any seaport, and it will require some 50 years at the present rate before the 1000 miles of the Ohio have been deepened to the nine-foot draught now demanded. Under this condition of affairs it does not appear that even the waterways will be available at an early date for the relief of the railroads, which are now unable to deliver freight on time contracts.

*See accompanying cut.

The Freight Congestion.

The general elements affecting this problem are the population, tonnage, track and yard facilities, motive power, rolling stock, lighterage and storage. Their mutual relations may best be exhibited and compared by citing the statistics of growth for the decade 1895-1905 as given by the Statistical Abstract of the United States and computing the percentages of increase. The population is obtained from the previous diagram, which is believed to be reliable:

Tabular Exhibit of Increments Between 1895 and 1905.

Elements.	1895.	1905.	Increase.	Per cent.
Population.....	69,453,470	86,123,871	16,670,401	24
Railroad Mileage:				
Single track.....	177,746	216,973	39,227	22
Second, third, fourth tracks.....	12,348	19,881	6,533	53
Yards and sidings.....	43,181	69,941	26,760	62
Total tracks.....	233,275	306,796	73,521	31
Tonnage carried.....	755,799,883	1,435,321,748	679,521,865	90
Ton-miles.....	88,567,770,801	187,375,621,537	98,807,850,736	111
Tons per mile.....	4,362	6,681	2,319	53
Rolling Stock:				
Locomotives.....	36,610	49,616	13,006	35
Freight cars.....	1,230,798	1,757,105	526,307	43
Tractive power.....	13,700	28,700	15,000	109
Freight-car capacity increased over.....				120
Tons per capita.....	10	15	5	50
Ton-miles per capita.....	1,160	2,000	840	72
Miles per 10,000 of population.....	23.30	23.04	Less.	

The conclusions to be drawn from this exhibit are that while the mileage has not kept pace even with the increase of population, the tonnage carried has actually increased fivefold, while the density of traffic per mile has increased over 50 per cent. To render this result possible it has been necessary to build larger and heavier engines and cars, requiring much reconstruction of tracks and bridges and enlargement of tunnels. The tonnage per capita has increased 50 per cent. in the past 10 years, while the ton-mileage increased 72 per cent., indicating a gain in efficiency of 22 per cent.

Whilst the number of locomotives and cars have increased faster than the population, and far more slowly than the tonnage, yet the increase in tractive power and capacity have been greater than even the ton-mileage, but the inherent impossibility of utilizing them for transportation for a large part of the time greatly reduces their efficiency. It is found that the actual time which the cars can be employed in moving

**DIAGRAM SHOWING TOTAL MILEAGE
OF THE
RAILROADS OF THE UNITED STATES**

*Built mainly from popular sub-
scriptions, under Corporations*

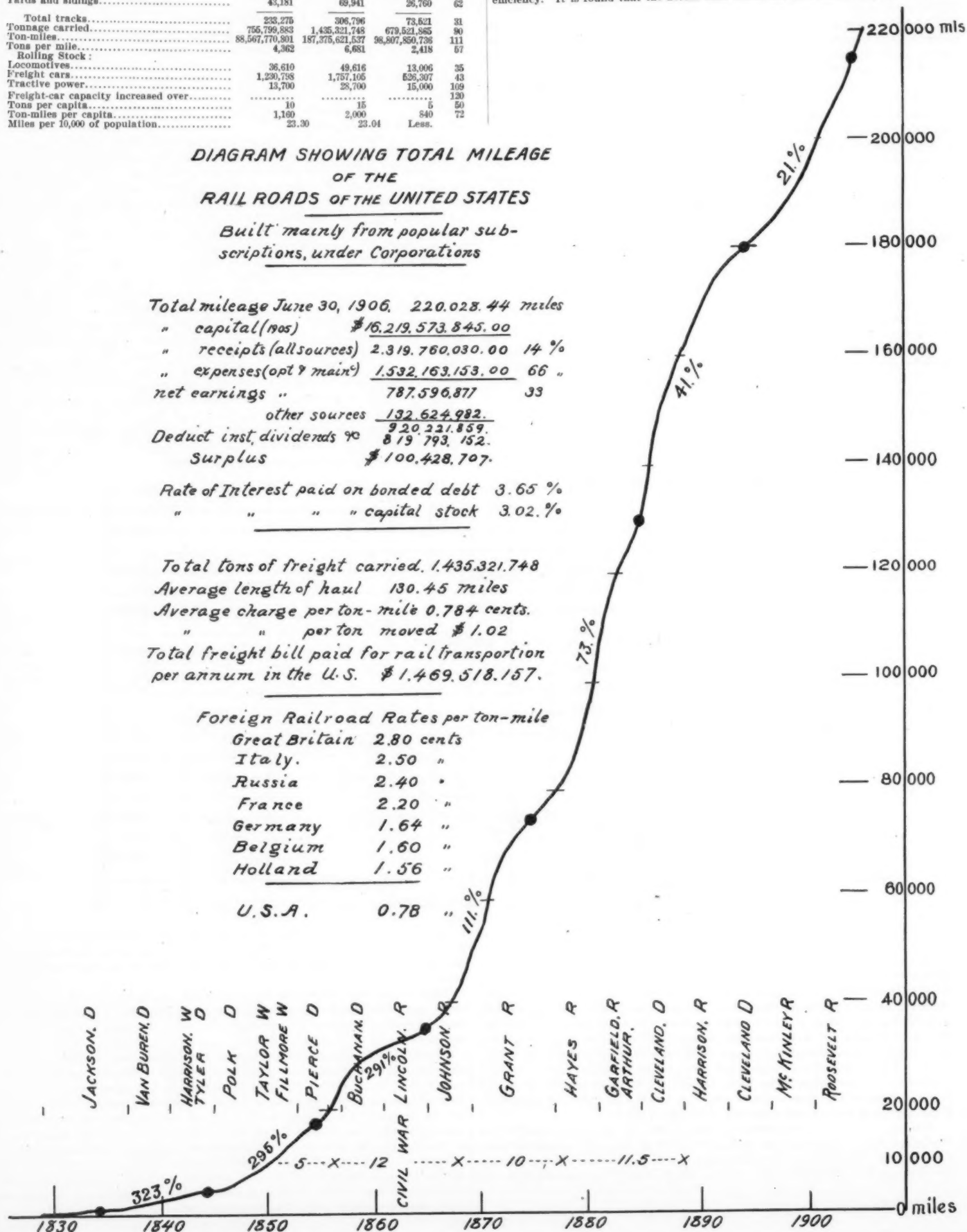
Total mileage June 30, 1906. 220,028.44 miles
 " capital (nos) \$16,219,573,845.00
 " receipts (all sources) 2,319,760,030.00 14 %
 " expenses (op & main) 1,532,163,153.00 66 %
 net earnings " 787,596,877 33
 other sources 132,624,982.
 Deduct inst. dividends % 920,221,859.
 Surplus \$100,428,707.

Rate of Interest paid on bonded debt 3.65 %
 " " " " capital stock 3.02 %

Total tons of freight carried. 1,435,321,748
 Average length of haul 130.45 miles
 Average charge per ton-mile 0.784 cents.
 " " per ton moved \$1.02
 Total freight bill paid for rail transportation
 per annum in the U.S. \$1,469,518,157.

Foreign Railroad Rates per ton-mile

Great Britain	2.80 cents
Italy.	2.50 "
Russia	2.40 "
France	2.20 "
Germany	1.64 "
Belgium	1.60 "
Holland	1.56 "
U.S.A.	0.78 "

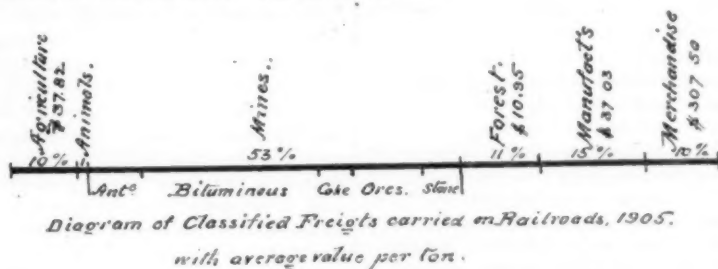


freight is but two hours out of the day, or one-twelfth of the time, and that the balance is consumed in the yards for storage or lading. Hence the larger the number of cars the greater the delays. This is not a recent development, for as long ago as 15 years the president of the Pennsylvania Railroad in his annual report stated that "the year 1892 presented the anomalous condition of a larger amount of traffic being tendered to the railways than they were properly able to handle, while, at the same time, the competition between the transportation lines of the country was more active and the traffic carried at lower rates than at any other period in their history."

In his startling address before the Merchants' Club of Chicago, November 10, 1906, President James J. Hill pertinently stated that the "growth in ton-mileage was 110 per cent. The growth in the mileage of railroads to handle that traffic was 20 per cent. There is where the whole country stands today. The traffic of the country is congested beyond imagination. The commerce of the country is paralyzed, and continued it means slow death." He then proceeds to show the practical impossibility of meeting the requirement for the necessary mileage and terminals, and says that the money required would be more than double the entire amount in circulation in the United States; that the total capacity of the rolling mills is 3,000,000 tons, of which 2,250,000 are required for renewals annually, and if the rails and the money were available it would not be possible to procure the labor to lay this additional trackage. As a last resort he therefore turns to the waterways and recommends a 15-foot canal to be built from St. Louis to New Orleans, and "the sooner it is built the better for the country." But in view of the financial condition of the public treasury, as set forth in the previous articles, and the insuperable difficulties attending the construction of these works under Government control, it would seem to be almost as hopeless a task as the construction of the additional tracks.

The most practicable solution of this remedy seems to be the one now being applied by New York, Illinois and other States, which are proceeding out of their own resources to construct the necessary watercourses for the relief of their own necessities, regardless of appropriations from the United States.

There appears, however, to be a possibility of further securing a large measure of relief by a readjustment of the tonnage and a segregation of the lower-grade tonnage to the canals and rivers which could readily be restored at small cost as auxiliaries to the railroads, and which might be built out of their earnings to relieve and cheapen the traffic. The tonnage of 1905 was composed of the following classes of commodities: Products of agriculture, 10 per cent.; of animals, 1 per cent.; of mines, 53 per cent.; of forests, 11 per cent.; of manufactures, 15 per cent.; of merchandise and other articles, 10 per cent. In 1905, of the 53 per cent. from the mines, nearly 500,000,000 tons were coal and coke, and 108,253,681 were ores. These materials were at one time, in the earlier history of the country, handled almost exclusively by water at much lower prices than are charged today, and it would seem to be a wise policy for the railroads holding these waterways to restore them to their legitimate use and thus relieve their tracks and rolling stock for the higher class traffic.



From the diagram showing the character of the traffic carried by the railroads in 1905 it appears that the products of the mines composed the larger part of their tonnage, and, because of its relatively low value and the small margin available for transportation, the average haul must necessarily be short. The average of all commodities for the United States was found to be 130.45 miles in 1905, which, at the average charge of .78 cent per ton-mile, would make the charge for the average distance \$1.02, which would seem to be about the limit for coal, especially of the lower grades.

The output of the coal mines of this country for 1905 was "384,598,643 short tons, having a value of \$476,756,963."* From these figures there results an average value per ton of only \$1.24, so that the margin for transportation must be very low, while the volume is larger than that of any other commodity. The distribution is also quite general, and the largest deposits of the East are accessible by water. The anthracite regions were opened by the Lehigh Navigation, the Schuylkill Navigation, the Delaware and Hudson Canal and the Union Canal, while the bituminous fields of Maryland and West Virginia were tapped by the Chesapeake and Ohio Canal, the Monongahela and Kanawha improvements and the Ohio Canal.

As an illustration of the utility of the water rates, it may be stated that one Pittsburgh firm, using between 2,000,000 and 3,000,000 tons of coal a year, saves \$1,000,000 by securing its fuel by water instead of by rail.

There are still enormous areas of undeveloped coal reserves in the United States, but they are so far removed from the centers of industries and the seaboard that it is unprofitable to utilize them under existing conditions of transportation. The factories must be installed at the mines and the manufactured product be conveyed to the market because of its higher value, which admits of the long haul. In short, the policy of the railroads must look for relief from engorgement by transferring these low-grade, bulky materials to other avenues of transportation and also to the creation of a larger number of terminal points with greater yardage and storage facilities, permitting the cars to be employed a larger percentage of the time on the road. The average haul of 130 miles can be made in about eight hours, yet the cars are held in the yards from six to eight days, which would give an efficiency of only about 6 per cent., and the more the number of cars is increased, without increase of track, etc., the greater the expense and obstruction. The railroad system would seem to have reached its limit in the effort to handle traffic in small units, and no amount of legislation will relieve the situation. Lowering rates by law will merely stimulate engorgement or drive some lines out of business and increase the tonnage on the survivors. Segregation of traffic is the most available

remedy wherever it is practicable, and this entails the immediate restoration of the waterways to their fullest capacity.

Railroad Rate Regulation.

In a country covering the extent of the United States, with its great range of altitude, latitude and physical conditions, it is impracticable to attempt to establish general laws to regulate rates by legislation. The returns from every well-conducted business are supposed to be sufficient to pay all fixed charges and leave a fair percentage for interest on capital. The statistics show that for the bonds of railroads the dividend paid averages 3.65 per cent., and for the stock 3.02 per cent. This is not a very attractive showing for so large a capital. To attempt to fix a low maximum charge based upon present average conditions would be fatal to many roads, as a glance at the returns by groups will show the great differences which exist in cost of operation and maintenance due to mountains, plains, frost, snow, floods, character and amount of traffic, labor conditions and many other factors. Thus it is found that in New England Group I, where there is not sufficient food nor fuel to supply the local population of this manufacturing section, the average rail rate per ton-mile for freight is 1.167 cents, and the revenue per mile of road is \$7.681.

In Group II, extending along the coast from New York to Maryland, inclusive, the rate is but little more than one-half of the former, or .607 cent, while the revenues per mile are almost double, or \$14.010. For Group III, extending along the shores of the upper lakes; and where there is the cheapest water competition in the country, the ton-mile rate is still lower, namely, .007 cent, and the receipts are \$8.833 per mile. This district embraces the States of Ohio, Indiana and Michigan, which are not connected with the seaboard, and hence the lesser returns per mile. From Virginia to South Carolina, Group IV, the rate is .691. In Group V, extending from Kentucky to the Gulf, and including Georgia and Florida, on the Atlantic, the average rate is .839. Between the lakes and the Missouri river, Group VI, it is .766. From the Missouri to the Rocky mountains, Group VII, it is .900. South of this, extending to the Red river and including Arkansas, Group VIII, it is .988. For Louisiana and Texas, Group IX, it rises to 1.096, and for the Pacific slope, Group X, it reaches to 1.098.

The variations are, therefore, almost 100 per cent., due to local conditions, and any effort to establish a fixed rate, say of one cent, as a maximum, would drive the population out of New England and close its plants. While New England is lacking in fuels, she has developed her water-powers to a large extent, but neglected her waterways for transportation, so that the higher rail rates are largely due to the manufactured goods created by the cheap power plants. On the other hand, the general prosperity of the lake group is due to the low rates on ores and fuel rendered possible by those inland seas, which have proven to be of so great value to the railroads skirting their unproductive areas. Group III, with half the rate of Group I, produces a larger return per ton-mile because of its low water competition, which has developed the great manufacturing establishments in that district.

Although the railroads of Texas charge over one cent per ton-mile, their returns are but \$4.006 per mile, or less than half those of the lake region, with its ice and snow.

The same general features are observable as to the passenger rates. The lowest average is found to exist in Group II, where it is 1.722 cents per passenger mile, and the highest is in Group IX, Texas, where it reaches 2.283 cents, while the greatest return is in New England, where the passenger receipts per mile of road are \$6.237. The reasons are manifest—distribution of population and numerous small centers of industry, generating greater mobility.

The average rate per passenger mile in the United States for 1905 was 1.962 cents, and it is evident that any effort to fix a maximum of two cents would work injury to a large section of the country and retard its development. The elements which have attracted population, and especially manufacturing plants, to certain sections, namely, cheap fuel and competitive transportation rates, should be more generally disseminated, that the traffic may be distributed more equitably and for the benefit of all the railroads, as it would enable them to conduct the business at less cost and greater profit for their shareholders. This result can best be obtained by opening up the magnificent waterways of the country, which are still slumbering in the lap of Nature, and utilizing the water-powers at the same time. In this respect the South country is signally blessed, but it has hitherto lacked the means to create the facilities which are so vital for the opening of her rich mines and agricultural wealth.

Taxes Paid by Railroads.

During the fiscal year ended June 30, 1905, the railroads of the country paid to the various States a total tax aggregating \$63,324,551, which was made a part of the cost of transportation, and therefore entered into the rate. In other words, the people of the United States paid these taxes through the railroads acting as the agents or collectors for the several States. The tonnage tax on the Pennsylvania Railroad during its earlier days was found to be so oppressive a burden, in view of the fact that the State was maintaining its canals at public expense as competitors, that it became necessary for the railroad to secure control of the canal, as well as to regulate legislation, that it might be in position to maintain its existence and perform a public service. There would seem to be too much restrictive legislation not only in the way of our railroads, but in the path of our merchant marine and their waterways.

Water-Powers and Navigation.

Editor Manufacturers' Record:

Water-power investments in the South are better than investments in coal beds, copper, silver or gold mines; for not one pound taken out of the mine will ever be restored.

The expression "You cannot eat the cake and keep it" is inapplicable to the utilization of a constant flowing water-power. For every atom of water passing through a water-wheel another atom flows to take its place with unceasing readiness.

There is not an atom of water less today than at the beginning of earth's creation. Water is the most economic of all earthly power agencies. The vast bodies

of water, actuated by tidal motion, serve as it were a great spherical pendulum to regulate the motion of the earth on its axis, than which motion there is nothing comparable for constancy and regularity. This all-wise provisional agency for the regulation of the earth's rotation insures the perpetuity of water in all its varied uses and complex penetrations, permeations and ramifications throughout all earthly affairs.

The plan of the regulation of the motion of the earth does not admit of a loss in either volume, weight, force or mobility of water. Our existence is dependent upon its perpetuity, as also the existence of the entire animal and vegetable kingdoms. And it is through these wonderful missions

*See the *National Geographic Magazine*, Washington, D. C., February, 1907, article by M. R. Campbell, "How Long Will the Coal Reserves of the United States Last?"

of service that it rises to the higher purifying levels, thence unceasingly wending its gravitating power-course seaward to vibrate the great tidal pendulum perpetually.

The lofty cloud-breaking peaks and forest-clad mountain ranges, overtopping Piedmont hills, out from the ravines of which are ever-gushing perpetual springs, making up countless rivulets, unceasingly feeding rapidly-flowing rivers with a guaranteed goodly minimum gauge of water for ages to come. Couple these facts with an elevation of thought commensurate with the elevation of our great rivers above sea-level, with an eye to the fixed law—water seeks its level—and on its downward course through broad valleys offers a continuous chain of spacious impounding areas and reservoir basins, interspersed with falls and rapids, bounded with stone walls, presenting an abundance of good material for the construction of power dams, on bed-rock foundations, and you at once have nature's guarantee of the cheapest, the best and the only self-repeating power agency on earth.

The rapidly-increasing consumption of coal through increase of population and the destruction of the forests, and through our territorial expansion, increasing navy and coaling stations, and the ever-increasing demands for labor, all these, viewed in the light of the limited fields of European coal, seem to warrant against hope of lower prices for coal. The general well-being of mankind calls for steps tending to check the present lavish use of nature's coal preserve and stay proper use for our posterity.

Even at present prices of coal it is cheaper and better that we make the freer use of the inexhaustible forces of nature passing as so much waste of power every moment over the shoals and rapids of the rivers of water running along life's very highway.

Many water-powers for the time being are comparatively valueless, regardless of amount of power available, owing to want of an immediate surrounding population—a want of business industries and manufacturing enterprises sufficient to utilize them.

The Savannah, Tugaloo and Seneca rivers offer some of the largest and best powers in the South, situated, as they are, in a well-populated thriving farming country of ungarnered mineral wealth, in the very midst of cotton production, to which should be added wool production.

No country on earth can compete with the South in the manufacture of any kind, class or texture of cotton goods or woolsens, having so many advantages as we have, with the addition of cheap water-power drive for the spindles and looms immediately at the mill door, or by electric transmission from water-power nearby.

The light is already dawning on the time when the South will control the price of cotton and cotton goods. Cotton manufacturers remote from the cotton fields can no longer disregard our many advantages, apparent at every turn, and as cotton manufacturing increases other lines of manufacturing are sure to follow.

The day is not far distant when a double-track railway from the West across the mountains to the coast of South Carolina will be operated by water-power of the Savannah and the Tennessee (electrically), bring coal to warm us in winter, or, in the absence of the coal, we may be warmed by an electric current sent out by water-power.

This is destined to be a great manufacturing country, and we will in a comparatively short time need all the water-powers available. We should, therefore, carefully consider and wisely systematize our water-

power developments to economic ends before it is too late.

There are no powers to be found anywhere superior to the powers of the rivers above named in all things essential to the make-up of first-class water-powers; provided these rivers from Augusta up be treated as one continuous chain of water-powers, to be so "regulated" that the development of one power shall not stand in the way or bar the development of larger powers; or, in other words, should not be constructed at such place and in such manner as to stand in the way of the fullest possible development of power. To do this in a manner consistent with the requirements on a navigable river we should provide the very largest or longest possible impounding lakes, such as shall completely flow the water from one dam back to the next one above to a depth sufficient for progressive navigation requirements, with adequate lock in each dam, and make good the prior and superior right of navigation, as is guaranteed by the fundamental law of our Government.

Recent acts of Congress in granting permits to build dams on the Savannah and Tugaloo rivers is an admission that these rivers are navigable. And these interests—power and navigation—can and should be so "regulated" and directed as to utilize these rivers to the very fullest extent of power development and progressive navigation.

In the selection and approval of dam sites much discretion should be used, both as to power development and navigation. Any plan for development of the shoals only by dam at foot of shoal would certainly destroy all agricultural values in the river valleys for miles above the shoals and cause the channel running through the level land to fill with all sorts of debris to the great disadvantage and injury to prospective navigation. Large areas for impounding water are of as much importance as the shoals when all the bearings upon the subject are rightly taken into account.

It therefore stands to reason that the "regulation" for the construction of dams across these rivers should be directed to bring about the best results in the interests of navigation. The more especially so when such regulation insures the fullest possible measure of power development and property values along these rivers.

JOHN V. STRIBLING.

Anderson, S. C.

CENTERED 'AT MEMPHIS.

Activity in the Lumber Trade and Other Lines.

[Special Cor. Manufacturers' Record.]
Memphis, Tenn., March 30.

There are no dull items in the hardwood list at Memphis. Even quarter-sawn red oak is moving nicely where it was regarded as a trifle weak some time ago. The good weather has favored production, but dry stocks have been but slightly augmented, the shipments out keeping pace with the work of the saws. More gum has been manufactured than any other wood, but no change is shown in prices because of this. Ash, cypress, oak and poplar are all very active. The spring building trade is showing a large demand for sash, doors, blinds and all kinds of retail stock. The box business is as active as can be, and the consumption of cottonwood is as large as the supply will allow. The lumbermen here deny that the car situation is much improved, but the railroads and commercial bodies are working along in unison and harmony to bring about that end.

The International Slack Coopers Stock Manufacturers' Association will hold its annual meeting here April 22 and 23. At the meeting the election of officers for the ensuing year will occur.

The National Drainage Association will

hold its annual meeting here on May 15 next. There will be a large attendance from the Southern States and from other parts of the country as well. Tennessee, Mississippi, Alabama, Arkansas, Louisiana and South Carolina are especially interested in this work, which means the reclamation of vast acreage in swamp lands. The association was organized some time ago at Oklahoma City with Geo. E. Barstow, president, Barstow, Texas; J. S. Osborne, Coffeyville, Kan., vice-president, and Thos. L. Cannon of St. Louis, secretary.

The Tennessee State Association of Builders' Exchanges has just been formally launched after a meeting in this city. It is composed of contractors, builders and handlers of building material. I. N. Chambers, president of the Memphis Builders' Exchange, was elected president, and O. O. Howard of Memphis, secretary. It is the intention of the Tennessee Association to apply for membership in the National Association of Builders' Exchanges and to undertake the correction of trade evils within the State and to work for general progress in the building trades.

The St. Francis levee board, which has its headquarters in this city, is preparing to have a large amount of work done during the coming summer. This work will cover a distance of 41 miles, and will be more than 2,000,000 cubic feet of earth-work. Bids will be opened on April 24 at the office of the board in the Randolph Building, Memphis. The work will be done under the direction of M. N. Pharr, the chief engineer of the board.

The Memphis Furniture Manufacturing Co. of this city will replace at once the warehouses they lost by fire the past week. The damage amounted to about \$125,000, covered by insurance. The factory was not damaged, and as the company had yet another factory and warehouse in the city, its shipments will not be materially delayed on account of the fire.

The Lumbermen's Club of Memphis has just received statistics showing that last year Memphis firms handled 548,776,000 feet of lumber and exported 39,462,000 feet. The amount of lumber consumed by retail yards was 100,000,000 feet. The increase in the amount of lumber manufactured over the preceding year was 31,463,000 feet on stock manufactured within the city and 229,397,000 feet by Memphis firms manufacturing outside the city.

The Three States Lumber Co. of this city expects to have its new planing mill and box factory now under erection at Burdette, Ark., running within 60 days.

The Baker Lumber Co. of this city has completed a large hardwood mill at Turrell, Ark., which will have a capacity of 50,000 feet of lumber per day. F. E. Gary, vice-president of the Memphis Lumbermen's Club, is manager of the firm in the South.

Binghamton, one of the industrial suburbs of Memphis, and just north of the city, is to have a bank. It will be called the Binghamton Bank & Trust Co. O. G. Gardner of Jackson, Tenn., will be president. Binghamton is the seat of the American Car & Foundry Co.'s southern branch of the Virginia-Carolina Fertilizer Works and numerous other concerns. Plans have been drawn for a new building for the North Memphis Savings Bank, that will stand at the northeast corner of North Main and Adams avenue. The bottom floors will be devoted to the bank and the upper stories to offices.

Board of Trade Wants Manager.

Norfolk business men believe that the Jamestown Exposition will give them a special opportunity to bring the attention of people from all sections of the country to the advantages of their city. They are

arranging to secure an energetic and capable man who will undertake to be statistician and business manager of their Board of Trade. One is needed who can command the support of Norfolk people and at the same time bring the attention of the outside world to Norfolk's opportunities and natural advantages as a commercial city. Immediate correspondence is desired with applicants. Address Willard R. Cook, chairman committee in charge, Norfolk, Va.

Lime Nitrogen as Fertilizer.

The Chemical Society of Washington was addressed Monday by Dr. A. Frank, Jr., of Berlin on the uses, qualities and methods of manufacturing calcium cyanamid or lime nitrogen as developed by Dr. A. Frank, the father of the lecturer, and Dr. Nikodem Caro, both of Germany.

Economists, statisticians and the leading agriculturalists of the various countries of the world have, it was claimed by the lecturer, been arguing for a number of years that unless some practicable commercial means were developed of artificially producing a nitrogen fertilizer for the soil that the rapidly-increasing population on the face of the earth, together with the continuous impoverishment of the soil of its necessary nitrogen contents, would bring the world face to face with starvation in a comparatively short time. The seriousness of the situation is naturally felt more keenly in the older countries of Europe, where the people are more crowded upon the land and the soil has been cultivated for generations, and this fact, together with the well-known skill and patience of the German chemists, has led to a natural consequence in the final solution of the problem by German scientists.

The agriculture departments of various European governments have carried on continuous experiments with lime nitrogen as a fertilizer for various crops for the past five years. It seems that the value of a fertilizer can be determined only through a succession of yearly applications to the same fields, and it was only within the past year or 18 months that the good qualities of lime nitrogen to vegetables, fruits and cereals and other crops was thoroughly established in the minds of the government officials of the various European countries.

A call has been issued by Messrs. George W. Rogers, president Little Rock Board of Trade; W. M. Kavanaugh, member of the board of governors of the Deep Waterways Association, and W. E. Lenon, Mayor of Little Rock, to the citizens of Arkansas valley for a convention to be held in Little Rock, Ark., April 25 for the purpose of devising some means to improve the congested condition of freight transportation. Among the important subjects to be discussed will be the development of the Arkansas river valley coal fields and the organization of a steamboat and barge line.

The Greater Louisville Club has been organized for the purpose of furthering the interests of Louisville, Ky., with T. B. McCabe, president; Owen Tyler, first vice-president; P. C. Beckley, second vice-president; J. C. Hero, third vice-president; Dr. W. H. Netherland, treasurer; S. C. Dalrymple, secretary, and Amos Campbell, F. W. Keisker, F. A. Reese, Priest Frazier, Capt. William Neal and Charles B. Norton, directors.

The Business Men's Club of Richmond, Va., has been organized with Messrs. O. J. Sands, chairman, and T. P. Bryan, secretary, temporarily.

The League of Georgia Municipalities will meet at Athens May 28-29.

CURRENT EVENTS AS VIEWED BY OTHERS

THREATENED STRIKE OF RAILWAY MEN.

[Chicago (Ill.) Record-Herald.]

Without passing on the merits of the controversy over wages and hours that threatens a strike of 50,000 employes of some 40 railroad systems in the West, certain facts and considerations stand out with impressive clearness.

Any complicated industrial dispute which reaches a stage at which either of the parties definitely proffers fair arbitration should not be allowed to pass out of the sphere of reason and a spirit of give and take and assume the character of a mere trial of force or of endurance. Strikes, even on a small scale, entail hardship and disturbance, and every enlightened employer or workman should regard them in the light of a last, unfortunate resort, as an evil to be avoided if at all possible.

Where the threatened strike affects tens of thousands of men and spells industrial and commercial paralysis, the responsibility of the leaders is all the greater and heavier. In addition to the material and moral losses that both parties sustain in such a contest, there are the interests of the great "third party," the public, to be taken into account. The time is past, gone forever, when it was deemed rational to suggest that the public "had no business" in a controversy over wages or hours, and simply must suffer in silence until the warfare exhausts one party or the other and is terminated by surrender or compromise. The recognition of the public concern in any serious strike is now general and earnest.

Neither the employes nor the railroad managers can now afford to take the position that their inability to arrive at a mutually satisfactory settlement should be meekly and humbly accepted by the business community and by the public, by producers and distributors and consumers, as an all-sufficient reason for enduring the disastrous effects of a sudden and practically universal suspension of commerce.

To avert the strike now apparently imminent in the great West is literally an imperative public duty as well as the plain dictate of sober and conservative sense.

Moreover, injurious and bad at any time, an extensive and stubborn railroad strike would be doubly calamitous at this particular juncture. There is much nervousness in the world of affairs, much talk of recession and reaction, and some corporations have announced curtailment of expenditures and postponement of improvements. The attempted anti-railroad legislation in a number of States is undoubtedly a menace to continued industrial activity. The permanent evil effects of a strike coming on the heels of other untoward developments can hardly be overestimated.

This is a time for sanity, for regard for public interests and anxious reflection upon industrial needs and the conditions of national well-being. The threatened strike threatens the public and the prosperity of the country.

[New York Journal of Commerce.]

This situation and the assumption of power by labor unions to override all public rights and disregard alike the obligations of the common carriers by whom they are employed and the interests of shippers in a continuous service brings into relief the greatest of all dan-

gers to the business and prosperity of the country. Railroad corporations are bound by their charters and their relations to law and public authority not only to keep their lines in operation, but to afford regular and sufficient service on reasonable terms at all times. If they fail to do so individually they are liable to penalties and damages. If they collectively combine to restrict this service in such a way as to put a restraint upon trade and injure the interests they are bound to serve, they violate the law and come in conflict with an authority to which they are bound to submit, and can be forced to submit. Railroad employes acting individually have a right to leave their work at any time if they are dissatisfied with its terms and conditions and are ready to give away to others willing to take their places. The companies would have to take the chance of such losses in their force of workmen and to make them good as best they might. But if the workmen, not only of one company, but of all the companies over a wide range of country, may be leagued together to abandon their places simultaneously at a given signal or a word of order from any authority, they have the railroads at their mercy and may produce an intolerable situation, not merely intolerable for the railroads, but for the community at large in which the railroads operate and for the whole country. A widespread railroad strike at such a time as this might have a disastrous effect, breaking and turning back the tide of prosperity with calamitous results to capital and labor alike.

The effect upon public opinion of such a rash and reckless proceeding on the part of any organized body of men cannot be doubted. The condemnation that would fall upon them would be scathing, but that is of less consequence than the toleration of such a possibility, for these men are making their threats and presuming upon their power to do this thing as a means of forcing the corporations they serve to accept their terms, whatever they may be. If such a power can really be exercised in spite of any authority except that which directs it, then it makes no difference whether the terms and conditions are reasonable and just or not. It makes itself the sole judge of that question and can enforce any terms it pleases. Such a power should not be permitted to exist. It is not permitted to corporations or combinations of capital, and if such an attempt or threat to use it in their behalf were made the country would ring with denunciation and the leagues through which they worked would be routed and scattered incontinently.

[Pittsburg (Pa.) Dispatch.]

A much more tangible danger to prosperity than that imagined by some railroad exponents to come from regulative legislation is indicated in the news that negotiations between the Western railroads and their employes have failed, and unless the former ask a conference on the basis of a 12 per cent. increase in wages, a general strike will be ordered. From observations at this distance an unconciliatory attitude is discernible on both sides. This is unfortunate for all concerned. It hardly needs elaboration that a strike suspending or hampering transportation at this time would be an

unqualified misfortune for the public, for the railroads and for their employes.

One feature in connection with the threatened trouble can hardly fail to attract attention. The leaders of the unions, Mr. Morrissey in particular, are quoted as saying that they will not accept arbitration under the Erdman Act of the 54th Congress. The reason assigned is that as there is no way of enforcing the finding of an arbitration against the employes, i. e., of forcing them to work at the wages awarded, the act is nugatory. That is true, so far as any compulsion is involved to sustain the finding. It is, as the *Dispatch* has often pointed out when compulsory arbitration was under discussion, the point at which that method must fail, since any legal attempt to make men work at wages they do not consider just would be enforced labor, repugnant to our democratic principles.

Nevertheless, compulsory arbitration is a widely-held tenet of the trades-unions; and it is somewhat surprising to see it disposed of with so little respect. It can hardly escape public attention that though compulsory arbitration may be impracticable, voluntary arbitration is not. Moreover, voluntary submission to arbitration is a principle of intelligent unionism too universally established to be discarded in a moment of heat. It is the appeal from force to reason. To throw it aside will be worse for workmen than for employers; and we can hardly believe that the great mass of union labor will endorse its repudiation.

We do not think the Western railway employes can afford to take the position for which large employers have been severely and justly criticised, that there is "nothing to arbitrate." They should rather declare that there is something to arbitrate and make plain their desire to arbitrate it.

FOR THE COASTAL CANAL.

[Houston Post.]

Mr. C. S. E. Holland, the wide-awake banker of Victoria, spent a few hours in Houston last night en route home after a conference with Major Jadwin relative to the commencement of the work on the intercoastal canal.

Mr. Holland is one of the originators of the intercoastal waterway movement. At least he is one of the prime movers who within the past couple of years took the proposition up and pushed it to a successful issue, and it is to be expected that he is quite enthusiastic over its present status.

"Why, we will have steamboats running into Victoria from the Mississippi before the lapse of five years," he stated to a *Post* representative last night, just before leaving for his home.

Major Jadwin informed Mr. Holland that contracts for the work from Matagorda bay to Arkansas Pass, from Arkansas Pass to Corpus Christi, and from Victoria down the Guadalupe to connect with this canal would be let first. Bids will be advertised for, and it is the expectation that work will be begun within the next 60 days. The Government will do the work with its own dredges from the mouth of the Brazos to Galveston.

A member of a dredging firm informed Mr. Holland that if that company secured the contract to do the contract portion of the work that it would be completed early in 1908.

"That means that we will get an appropriation by the Congress of that year to continue the work, and that by the end of five years steamboats will be running from Victoria to the Mississippi river," stated Mr. Holland.

NEW YORK LAND VALUES.

[New York Sun.]

The total land valuations of New York city by its recent census reached the enormous figure of \$5,800,000,000. This is an increase of \$400,000,000 in 1907 over 1906, and 1906, in turn, showed an increase of \$480,000,000 over 1905.

Within a decade, says *Moody's Magazine*, the increase has been considerably over 100 per cent. New York real estate is today valued at more than one-twentieth of the entire wealth of the United States.

It is greater than the entire wealth of many states, and even of many foreign countries. It is 25 per cent. more than the entire wealth of Holland, Spain, Sweden and Norway, 50 per cent. more than Switzerland, Denmark or Portugal; it is one-third that of Italy, one-fourth that of Austria-Hungary, one-fifth that of Russia, one-seventh that of Germany, one-eighth that of France, one-tenth that of Great Britain and Ireland.

GUESSING AT POPULATION.

[New York Tribune.]

Many newspapers are publishing in black-face type the estimates of city populations in 1906, just furnished by the Federal Census Bureau, without enlightening their readers as to the methods by which the totals given were obtained. No mysterious authority attaches to the figures produced, and it would be well for cities whose pride has been swollen or whose vanity has been wounded to remember that the increases reported are in most cases only mathematical deductions based on past rates of growth. The method of calculation adopted by the Census Bureau is simple and convenient, and it works well in dealing with cities in the mass. The calculator takes the growth in population of a given city between 1890 and 1900 and divides it by 10. Then for each year since 1900 he adds that increment to the city's actually enumerated population in 1900. As the rate of growth of all cities is fairly uniform, this, a *priori* estimate, fits in many cases, and its overestimates for the slower growing centres are balanced by its underestimates for the faster growing ones. Yet it is equally clear that though the general rate of urban progress is fairly uniform, the rate of individual cities varies materially from decade to decade, and no city can be sure that its growth for the last six years is accurately reflected in an arithmetical process based on its record from 1890 to 1900.

The faults of the process are plainly exhibited in the returns of population just made for the three cities of New York, Chicago and Philadelphia. The totals for Chicago and Philadelphia are machine made. Chicago had in 1900 1,698,575 inhabitants. Its gain for the decade between 1890 and 1900 was nearly 600,000. Its estimated annual growth since 1900 is therefore nearly 60,000 and its population in 1906 is put at 2,040,185. Philadelphia had in 1900, 1,293,697 inhabitants—a gain in 1890-1900 decade of 247,000. Its rate of growth since 1900 is therefore estimated at 24,700 annually, and its population in 1906 is put at 1,441,-

735. Suppose that the same rule is applied to New York. This city had in 1900, 3,437,202 inhabitants. Its gain in the 1890-1900 decade was 930,000. In 1906 it should have had a population of 3,995,000. But the federal estimate is 4,113,043. Why is this? Simply because a State enumeration was taken in 1905, which showed that this city, instead of having 3,902,000 inhabitants, had actually 4,014,304. It would hardly have done to give New York in 1906 a smaller population than the State enumeration credited it with in 1905. So the Federal Census Bureau took the State figures and added 99,000 as a fair guess at our growth in the last year.

We do not criticize the Bureau for using *prima facie* and up-to-date returns whenever they are available. But it is misleading to the general public, which does not realize how the figures are obtained, to put a total for one city alongside a total for another city reached by a count of noses. Why not collate and republish such returns as have a basis in local census operations and leave out the arbitrary general average figures? Anybody who knows the method can get the prospective population of a city which has had no enumeration since 1900. Only confusion can result from mixing estimates derived through varying and inconsistent processes.

SOUTHERN RAILROAD PROJECTS.

[Fort Smith (Ark.) *News-Record*.]

Despite the reports that there will be little railway building in this country under the existing adverse laws, it seems that the schemes for railway construction, especially throughout the South and West, are the most stupendous in history.

The opening of the Panama canal will throw the great burden of transcontinental traffic through that channel, and if reports are true, every railway in the country is planning a Gulf coast outlet for its traffic.

What the railroads have already done and what they are now planning to do are enterprises of which the general public has comparatively little information, possibly only a vague idea.

The plans of railroads may be summarized as follows: Short lines from St. Louis, Chicago, Kansas City, Minneapolis and St. Paul to New Orleans, Galveston and Mobile; short lines from the same centers to Birmingham, Southeastern points and the South Atlantic ports on the Mexican Pacific coast; short lines from the same centers to the principal Mexican gateways; short lines from Denver and San Francisco to New Orleans and the chief Mexican gateway; short lines from the Northwest and the West, through St. Louis and Memphis, to the Southwest; short lines from Birmingham, already a great iron, steel and coal-producing point, to New Orleans, to the West, to the North, to the Northwest and to the Atlantic coast, and roads along the Atlantic coast from New York city to New Orleans.

FUTURE OF CONCRETE.

[Concrete Review.]

In speaking of this subject Mr. G. C. Nimmons, an architect of Chicago, says: "One of the strongest influences toward the increase of the number of concrete buildings nowadays comes from fire insurance companies. The factory mutual insurance companies of New England are strong advocates of reinforced concrete buildings for commercial and manufacturing purposes. Not so much for any superior fireproof qualities of reinforced concrete, but on account of the superior waterproof qualities of concrete buildings. I

believe it is a matter of record that the factory mutuals of New England have paid more for water damage than for fire damage. Another condition favorable to the increase of concrete buildings is the increasing scarcity of yellow pine from the Southern States. The price of mill building has increased so much in recent years that the cost of a first-class mill-constructed building is almost as high as the cost of a concrete structure. Comparative bids recently taken in some instances show only a difference of 5 per cent. greater cost for the concrete over mill construction, and in other cases 10 per cent., so it is probable that the average difference in cost for a first-class mercantile building is somewhere between 5 and 10 per cent."

RURAL FREE DELIVERY.

[Paducah (Ky.) *Sun*.]

It was only a few years ago that the extension of the then experiment of rural free delivery met with fierce denunciation as a party measure, designed to give employment to more men, to increase Federal patronage and fasten on the country more firmly a great national political machine. The center of the heated opposition was found in the country hamlet, where the storekeeper was postmaster, and his place of business the forum of public opinion. It may be true that practical politics dictated the encouragement of the rural free delivery, but back of it all was something better than mere politics, as the demands for further extensions, the interests of the farmers in the efficiency of the service and the popular support of the measure to increase the pay of the carriers testify. Now the farmer has his mail delivered at his door every day, rain or shine, and he gets his daily city paper. He is in touch with the world's affairs as his father never was. His daily reading has broadened his horizon and put him into active sympathy with other interests in his country. Following the extension of rural delivery comes the movement for better roads. The Government will not send its carriers over routes the patrons of which are negligent of the highways. To get more efficient service of mail the farmers must provide better roads. When they get better roads they can haul their produce to the market whenever the market is right. They can visit their neighbors in the bad weather, when they cannot work on the farm. Social life in the country, with all its blessings, is promoted by the rural free delivery, which also provides a wider range in topics of conversation by carrying the daily papers to the farmhouse.

SANITARY STREETS.

[Columbia (S. C.) *Record*.]

There is one way to abate the dust evil in Columbia at small expense to the city. Let Council pass an ordinance providing that water shall be furnished free for street sprinkling purposes. Then property owners could provide spigots in iron boxes sunk in the sidewalks near their edges. Short sections of rubber hose attached to these spigots would be sufficient to thoroughly water the streets. This would be a job small boys would appreciate. With the pressure now on the city mains it would be easy work. Merchants or residents on a square could combine and one piece of hose would be sufficient for a square. In many other towns this system is used and it works admirably. If it came in general use in Columbia, this city would soon lose the deserved reproach of being one of the dustiest of cities. Dust is unsanitary. It is responsible for a large percentage of all diseases. It injures health and it does a large amount of property damage. It ruins stocks in stores and is an enemy to

paint. If the system herein favored were put in general use in Columbia, it would soon pay for itself. Which Alderman will be progressive enough to introduce and press the necessary ordinance?

[Richmond (Va.) *Times-Dispatch*.]

Are the citizens of Richmond to suffer the dust nuisance for another season? Cannot the Council be prevailed upon to abate it? These are questions that force themselves upon the attention of the public. The dust is worse than a nuisance. It is an affliction; it is a menace to eye and ear and throat and lung. It is a menace to health. It is insufferable, and there is a general cry for relief. The people pay the taxes and they are willing to pay whatever may be necessary to keep the dust down. There is no problem about it. Sprinkling is a complete remedy, and sprinkling is simple. Down with the dust! The people demand it.

[Charleston (W. Va.) *Gazette*.]

This city is reeking with filth. The alleys are a sea of mud and slime. If there is a street cleaning force we have failed to see it. Spring is here and summer is coming on, and unless something is done to relieve the unsanitary condition of the streets and back alleys we will have an epidemic. Disease lurks in every dirty mud-hole in the city. Money should be no consideration when it comes to making the city sanitary.

[Raleigh (N. C.) *Times*.]

We congratulate the street department of the city government upon getting the sprinklers to work.

INDUSTRIAL SCHOOLS.

[Fall River *Herald*.]

The Massachusetts Commission on Industrial Training has made public its first report. This commission was a suggestion of Governor Douglas, and the present body was named last year by Governor Guild. Its purpose is to discover if it is advisable to establish schools where the elements of the mechanical trades are to be taught and to recommend where the teaching should begin, and how far it should go. The report shows that the commission is impressed with the practical value of the plan, and it outlines a series of conclusions that are to be worked into detail in the future. The main idea is that children who leave the public schools at the age of, say, 12 or 14 years have been taught to read and write and have a smattering of other knowledge which is of the greatest value to them, but which has no special bearing upon any vocation in life. It is pointed out that such children who go to work at an early age usually drift into employment that has very limited future prospects for advancement. Even if they do enter trades they are not of very great use for a few years. It is the conviction of the commission that those years could be applied to advantage in a school where the groundwork is laid for practical work in a trade. They can be taught to handle tools and can learn the uses to which the kinds of tools are put. They can be instructed in the choice of material used in the trade and in a score of ways can be led along the way of making them more efficient as journeymen at an earlier age than is possible under the apprenticeship system. It is not proposed to have the schools take the place of the apprenticeship system entirely, but to be an auxiliary to it. Some opposition to the plan has made itself heard, on the ground that it threatened to crowd the labor market and to keep down wages in consequence. It is not likely, however, that serious disturbance of the labor market would result from such schools, for several reasons. One of them is the fact that not so very many more youths would be attracted into the

mechanical trades than now find their way into them. The experiments thus far tried in the State in industrial schools seem to point to this conclusion. Children who now leave school at an early age to help in the support of the family are forced to accept employment that will yield them wages. They cannot afford to go to the schools longer. Boys who complete high-school courses now are aware of the better prospects in the mechanical trades than in the clerkships to which they flock, but they choose the clerkships, and will be likely to continue to do so, even though there are industrial schools at hand.

DENUDATION AND DESTRUCTION.

[American Architect.]

We wonder whether Mr. Speaker Cannon, in view of the recent horribly disastrous freshets in Western Pennsylvania, will still hold the matter of the further denudation of the Appalachian and White mountain ranges as quite immaterial and unworthy his consideration. To other observers the relation between what has just happened and the causes, at one time preventable, is entirely plain. It is partially reassuring to learn that the Government is to begin this summer to make a series of surveys and investigations of the present forestation of these watersheds, and perhaps enough facts can be secured in this way to compel Congress at its next session to take some effective action. Doubtless President Roosevelt regrets keenly that he could not regulate the matter by executive order and erect these regions into "national forests" at the same time that he created a number of similar reservations in the Far West last month. Unfortunately, the situations are not the same. In the West the forests lately nationalized were still parts of the public domain, while in the East the Appalachian and White mountain territory long since passed into private ownership, and the State or the National Government can only again secure control of it by ordinary private purchase, or, at an appraisal, by exercise of the right of eminent domain. In any event, the cost of preserving and restoring these necessary forests is going to be very large; but then these Western Pennsylvania freshets, which Mr. Pinchot, chief of the Forestry Service, says were "due fundamentally to the cutting away of the forests on the watersheds of the Allegheny and Monongahela rivers," have this year cost the afflicted neighborhood the value of at least three battleships.

COAL FROM RIVER BEDS.

[Industrial World.]

Great quantities of anthracite coal is pumped annually from the small streams in Eastern Pennsylvania. The coal thus saved is much cheaper than is coal direct from the mines. At Harrisburg, Pa., where coal is pumped from the Susquehanna river, it is delivered at 87 cents per ton, whereas the coal from the mine is \$2.50 per ton.

The Monongahela and Allegheny rivers, together with the Ohio river, should prove valuable if the bottom was cleaned of the coal. The Monongahela and Ohio rivers are paved from Pittsburg to Cairo with a bed of coal. Most of this has been lost through wreckage of coal boats in transit South. The coal companies make only a slight effort to regain a part of the coal thus lost. The people residing along the river banks near the wrecked boats also pick up what coal they can carry away at low water.

It is time some method was adopted to clean up the vast amount of coal which lines the river bottom, often in vast quantities. It seems that this coal could be recovered at one-half the cost of mined coal. Coal which has been stored below water loses none of its calorific value. This has

been ascertained by the British Admiralty, which has adopted the method of storing bituminous coal under water in preference to leaving it lie in the atmosphere, where it disintegrates and loses much of its fuel value. The reason why the coal has not been cleaned up from the Ohio river is because of the low price of soft coal as compared with anthracite coal.

NATURAL TIMBER RESERVES.

[Lumber Trade Journal.]

The action of the President, upon the adjournment of Congress, proclaiming additional timber reservations has been heralded as affording "the lumber trust" an opportunity to "fight" such reservations. Allowing that there is such a thing as "the lumber trust," and everybody familiar with the subject knows there isn't, the action of the Government in withdrawing more than 100,000,000 acres of timber from sale would find favor, not disfavor, in that quarter. As a matter of fact, before pointed out in this department, the policy in question is distinctly of a character to enhance the value of privately held as well as public timber lands, and consequently the selling prices of lumber also. Could the huge empire of timber land now held in reserve by the Government be put upon the market its effect would unquestionably be to relax values, and, therefore, the last thing in the world that present private holders would be interested in advocating. As a matter of further fact, the *Journal* has no means at this moment of knowing just how such private holders regard the policy of wholesale reservations in question, but as the action of the President can at any time be undone or modified in the discretion of the Congress, the whole matter is subject to future manipulation accordingly. It is, however, unmistakably clear that the talk in question about the attitude of timber interests, falsely referred to as "the lumber trust," toward a policy every tendency of which is to enhance the value of forests and their products, is self-evidently absurd, or on its face groundless. Neither can it be doubted that the prevailing high prices of lumber, of which, by the way, so much bitter complaint is heard, is in considerable part a direct result of these same reservations.

INTERNATIONAL IRON AND STEEL

[Iron Age.]

The statistics of pig-iron production in the United States, Great Britain and Germany in 1906 show a total quite close to preliminary estimates, and suggest an interesting fact concerning the export trade of the three countries. . . . The presumption is that in the activity following the repair of losses from the Boer war and later the impetus given to European and Oriental commerce and industry by the peace between Russia and Japan, the supplying of the wants of countries not large producers of iron and steel has contributed to the unprecedented totals of the three leaders in iron and steel. The fact is that the home demand in the three leading countries themselves required much the greater part of their increase in output over 1905. Thus the total pig-iron production increased 4,362,000 tons over that of 1905, while the exports of iron and steel from the three countries were 1,500,000 tons more than in 1905, or about one-third the gain in output. The United Kingdom contributed 900,000 tons of the increase, exporting 4,600,000 tons in 1906 and 3,700,000 tons in 1905; the United States 1,325,157 tons in 1906, of such commodities as are reported by weight, and 1,010,255 tons in 1905; Germany, 3,600,000 tons in 1906, against 3,300,000 tons in 1905. The London *Engineer* points out that Great Britain's favorable trade balance in iron and steel was increased further, her imports being 100,000 tons less

last year than in 1905; on the other hand, the iron and steel imports of the United States rose from 416,000 tons in 1905 to 584,000 tons last year, and those of Germany from 300,000 tons in 1905 to 600,000 tons in 1906.

On previous occasions we have pointed out how cross-currents show themselves in the international iron and steel trade. Details are not yet available to show what quantities of the various forms of iron and steel exported from the United States went to Great Britain, for example. It is known that of the billet, bloom and ingot exports, which were 192,616 tons last year, nearly all went to Great Britain, besides quantities of plates, bars and structural steel. On the other hand, of Great Britain's increase of 900,000 tons in iron and steel exports, 680,000 tons was pig-iron, and out of this, 440,000 tons represented increased pig-iron exports to Germany, Belgium, France and the United States. Such a gain is well understood to have been due to the exceptional demand upon the capacity of all the steelmaking countries, and there is not to be given too great significance in figuring on the outlook for the British iron trade in 1907 and 1908. It is in finished material rather than in pig-iron that increased exports are to be sought, and it is not to be expected that Great Britain can make up in finished forms shipped out of the country for the falling off in pig-iron exports that will come when conditions in Germany and the United States more nearly approach the normal. The probabilities are, indeed, that as the high pressure relaxes Germany and the United States, as well as Belgium and France, will increase their shipments of finished steel to Great Britain.

TEN YEARS OF THE WORLD.

[London Express.]

A bird's-eye view of the social progress of the civilized world is given in a statistical abstract just issued in the form of a bluebook.

The first fact that stands out prominently is that in the past 10 years there has been a total increase in the population of the principal countries of the world of over 63,000,000 persons. We find that the total population has grown from 506,000,000 in 1895 to 570,000,000 last year. The figures are as follows:

	1895.	1905.
Russia.....	125,000,000	141,300,000
United States.....	68,934,000	83,143,000
Germany.....	52,279,000	60,605,000
Japan.....	42,271,000	47,975,000
United Kingdom.....	39,221,000	43,221,000
France.....	38,459,000	39,300,000
Italy.....	31,296,000	32,604,000
Austria.....	24,971,000	27,241,000
Hungary.....	18,257,000	20,114,000
Spain.....	18,157,000	18,900,000
Smaller nations.....	47,732,000	54,166,000

The most crowded civilized nation in the world is Belgium, while the nation which has the most room for expansion is the United States of America. This will be seen in the following series of figures:

	Area in square miles.	Persons per square mile.
United States.....	3,567,371	21.4
Russia (in Europe).....	2,052,480	31.3
Spain.....	194,744	96.5
Hungary.....	125,392	153.6
France.....	204,321	190.7
Austria.....	115,802	225.8
Germany.....	208,727	290.4
Japan.....	147,476	316.9
United Kingdom.....	121,371	341.6
Holland.....	12,559	406.4
Belgium.....	11,370	583.7

If, however, a particular portion of a country be taken, Germany easily holds the record, for the Hanse towns can boast of a population which is crowded to the extent of 3327 persons to the square mile.

The vital statistics of the various nations provide interesting reading. For instance, we find that Russia has the highest birthrate, the figures being 49 per 1000 of the population. But against this it has also the highest death rate, which stands at 31 per 1000 of the population.

The lowest birth rate is possessed by France, the births only averaging 21 per

1000 of the population, and when the fact that its death rate is as high as 19.6 per 1000 is considered, the small increase in the total population shown above is explained.

Spain, Italy, Austria, Hungary and Japan all have birth rates of over 32 per 1000, but their death rates are equally high, the lowest of the group being Japan, with a rate of 20 per 1000, and the highest Spain, with a rate of 25.8 per 1000.

The lowest death rate is that possessed by Denmark, where it stands at 13.9 per 1000, and as the Danes have a birth rate of 28.5 per 1000, their position is an enviable one.

The United Kingdom is among the most favorable so far as death rate is concerned—16.5 per 1000—but its birth rate has steadily fallen to 27.6. Generally speaking, it may be said that the greatest vitality may be found in the east of Europe.

London is still the only city in the world which can boast of a population of over 4,000,000. New York comes nearest, as the following table, giving a list of the great cities of the world with populations of over 1,000,000, shows:

	Population.
London.....	4,872,710
New York.....	3,437,000
Paris.....	2,714,000
Berlin.....	2,040,000
Tokio.....	1,819,000
Chicago.....	1,689,000
Vienna.....	1,675,000
Philadelphia.....	1,294,000
St. Petersburg.....	1,265,000
Moscow.....	1,039,000
Buenos Aires.....	1,026,000

The cost of running the world's principal nations varies greatly, and provides some interesting facts, the total debt owing by the nine most important civilized nations amounting to the enormous figure of over £4,000,000,000. The figures may be seen in detail in the following table:

	Expenditure.	Debt.
Russia.....	£223,675,000	£747,518,000
United States.....	150,022,000	296,222,000
United Kingdom.....	146,961,000	796,736,000
France.....	143,889,000	1,038,379,000
Germany.....	110,444,000	161,314,000
Italy.....	74,219,000	517,247,000
Austria.....	72,282,000	386,489,000
Hungary.....	50,640,000	226,343,000
Belgium.....	25,119,023	126,183,000

A comparison of the expenditures with the figures showing the population reveals the fact that Russia is the only country which succeeds in carrying on its national duties at less than £2 per head, while the United Kingdom, France and Austria-Hungary are the most costly nations, their expenditures reaching over £3 per head of population.

CARELESSNESS AND FIRES.

[Boston Evening Transcript.]

The fire report of a year for a big American city is always interesting reading, because it enters into detail as to the character and cause of every alarm, whether it means a fire of importance or not. The English city reports generally do not tell us about fires or the property loss involved, but enter into full particulars as to the human lives saved or sacrificed. They undoubtedly put the emphasis on the risks of greater value, but they yet fail to tell the whole story. The annual report of the New York fire commissioner is just issued. In Manhattan, Richmond and the Bronx there were 8331 alarms during the year, the estimated loss from which was \$5,697,691, and upon the property thus at risk there was insurance to the amount of \$192,279,595. The commissioner calls attention to the lax methods of some insurance officials in their way of issuing policies through their agents. "In many cases no attempt at all is made to see whether an applicant for a policy is justly entitled to the same." This leads to frequent overinsurance, which makes the holder indifferent to ordinary precaution and may in some cases be an actual incentive to incendiarism. The commissioner finds carelessness the cause of a

very large percentage of fires. In the Bronx and Richmond alone 887 fires were due to carelessness in the use of matches and 228 to children playing with matches. In Brooklyn and Queens 732 were reported as due to various forms of carelessness. Could that factor be measurably eliminated it would do more than almost anything else to reduce fire loss, and the commissioner appeals to the Board of Education to direct principals and teachers to instruct school children in the dangers of fires and measures for their avoidance.

IN EASTERN KENTUCKY.

[Louisville (Ky.) Courier-Journal.]

We are again treated to a statement that a survey is being made up the Middle Fork of the Kentucky river with the purpose of building a railroad up that stream to Pound Gap, the extreme eastern part of the State. There are two railroads extending from Louisville to the Eastern Kentucky coal field in that direction, the extension of either or both of which would be of infinite value to the development of that portion of the State. One of them is the Kentucky & Atlantic, running now from Versailles through Nicholasville and Richmond to Beattyville at the Three Forks of the Kentucky river. The other is the Kentucky Eastern, from Winchester to Jackson, Breathitt county. The former has connections with Louisville at Versailles by the Southern and the latter at Winchester by the Chesapeake & Ohio.

From Beattyville to Pound Gap by way of the Middle Fork is about 100 miles through the richest coal field in Kentucky or elsewhere, both as to quality and the number of workable veins. From Jackson to Pound Gap the distance is about 75 miles, through a territory only less inviting in point of its coal than the former. Both routes, while presenting obstacles inseparable from a mountain country, are practical and would not involve excessive cost of construction. For the ultimate development of the mineral territory both will be required, and either would bid fair to be an important link in the coming direct highway from Louisville to the Atlantic tidewater.

The feature which lends future consequence to these roads is the fact that sooner or later the Cumberland mountain will be tunneled at Pound Gap, and thence it is almost 30 miles to Norton, Va., the junction of the L. & N. branch from Cumberland Gap and the main stem of the Norfolk & Western leading direct to Newport News. This would relieve Louisville and a large part of Kentucky, especially its richest coal area, of the great disadvantage against which they have had to contend in the lack of a more direct connection eastward. To reach the seaboard Louisville has now either to turn the impassable wall of the Cumberland at Cumberland Gap or its northern extremity, at or near the Ohio, taking in either case two sides of a triangle, when by a direct road through Pound Gap she would take the hypotenuse. Besides this, it would open up a region of unsurpassed mineral and timber wealth which has lain for more than a century as a great sea of Sargassos practically dead to the waves of progress around it, and with an exaggerated reputation for lawlessness, due chiefly to its isolation.

This project for development and a more direct route eastward is not a new or chimerical one. It was agitated 20 years ago with apparently fair prospect of practical results. When, in 1888, the Kentucky & Eastern Railroad was in course of construction, its projectors caused a preliminary survey to be made to Pound Gap showing its feasibility. Then a charter was secured from the Legislature of Kentucky for the construction of a pay tunnel through the mountain for the

use of all roads converging there. Unfortunately, the financial crash which followed several years later prevented the consummation of the proposed enterprise, and nothing further has been done looking to the extension of the line or building of the tunnel. But in another quarter, having close bearing on this question, there have of late been important movements. The Big Sandy valley, the waters of which head near those of the Kentucky, not far from Pound Gap, which has a remarkably rich coal area of between 2500 and 3000 square miles, is attracting the attention of railroads and coal developers more than any part of Kentucky. The Chesapeake & Ohio is extending a branch from Catlettsburg by way of the Russell Fork and the Breaks of Sandy into Virginia, with a portion of the road in operation for nearly 100 miles through some of its best counties. Still another road is being surveyed, and rights of way secured, from Fullerton, in Greenup county, on the Ohio, nearly opposite Portsmouth, Ohio, where are railroad connections with all points northward. This is known as the North & South Railroad, which proposes to build through Greenup, Carter, Elliott, Morgan, Magoffin and Knott counties, and then southeast to Pound Gap, looking to ultimate extensions through North Carolina to the seaboard by consolidation of existing lines and making what has long been mooted, a great trunk line from Chicago to the South Atlantic coast.

It may be that the present depressed condition in railroad circles may retard the construction or extension of the roads named. But sooner or later they will be numbered among the most prosperous roads in the State. Twenty years ago Southeastern Kentucky was wrapped in the same deathlike slumber, but with the extensions of the L. & N. through Cumberland Gap cities sprung up, the wilderness blossomed with prosperity and the coal field penetrated, which had never produced commercial coal, now approximates, in its output, the Western coal field, and has made Kentucky rank eighth among the coal-bearing States.

BRITISH MILL BUILDING.

[Textile Recorder.]

The *Statist* gives some interesting figures showing the great increase in cotton-spinning mills during the past three years, and their effect upon other industries and wages. In the 30 years, 1870-1900, the increase in the number of spindles was only 6,300,000; since the commencement of the century, that is to say, in seven years, the number of spindles in Great Britain has increased by 10,000,000. At the present time the total number of spindles in France is only 7,000,000, and in Germany, including Austria and Switzerland, roughly 15,000,000. In the first year of the century mill flotation was almost at a standstill. Only four companies were registered, and of these, two remained dormant until 1903. The following year eight companies were registered; in 1902 only two were formed. It was not until 1903 that the boom began. In that year 10 large mill companies were registered, to be increased in 1904 by 16 other large mill companies; 1905 saw an addition of no less than 40 mill companies. Last year only 20 companies were formed, but the present year already sees 14 new large mill companies. Taking the five years, 1903-1907, 100 new mill companies, with a nominal capital of £8,330,000, have been formed; nor must the extensions of privately-owned mills, representing a large number of spindles and capital, be forgotten. The immense extension of production suggested by these figures has made work for a great army of workpeople, male and female, something like 30,000 persons of both sexes, with an addition in

wages bills of about £32,000 weekly for the additional 10,000,000 spindles. This money goes in turn, and for the most part, to shopkeepers, property-owners and places of amusement. The average of comfort is raised, and it may be mentioned that the number of operatives owning the houses they live in in Oldham, the center of the cotton-spinning district, is very greatly in excess of the proportion living in their own houses in any other part of the Kingdom. And three out of every five Oldham families have savings invested in the mills they work in.

MISSISSIPPI BARGING.

[New Orleans Times-Democrat.]

Some days ago we made mention in our news columns of a prospective steamboat and barge line, to be operated between St. Louis and this city. Since that time the enterprise has assumed a more definite form. It is now said the articles of incorporation will be filed in a day or so, orders have been placed for certain barges to be delivered not later than July 1, and arrangements have been made for dock facilities at various river points.

The progressive St. Louis business men who organized the company believe, we are told, that the time when railroads can crush river competition as they did in the past has gone by. They have several reasonable grounds for this belief. In the first place, the difficulty many of the railroads have at certain seasons in handling the freight which is offered, a difficulty frankly admitted by managers, has educated the business world to an understanding of the fact that waterways transportation is, under certain circumstances, at least, as satisfactory a way of getting goods to a given point in a reasonable time as is offered by the railroads. In the next place, we think it may reasonably be assumed that we have seen the end of much secret rebating and other underhand means of forcing steamboat and barge lines out of business. In the third place, unless there is a marked pause in our rapid industrial development there is, to paraphrase Admiral Schley, "business enough for us all."

It is needless to remark that New Orleans views with satisfaction the establishment of closer relations with St. Louis and points on the Mississippi and its tributaries. Nothing promises more to it than this revival of waterways transportation. Such enterprises as the one we mention, therefore, are sure of its sympathy and co-operation. We also believe they are sure of yielding handsome returns to the men who inaugurate and conduct them.

THREE WEEKS' PHENOMENA.

[Railroad Gazette.]

It has been computed on authority that the total shrinkage in market values of the shares of American railroads during a period of 68 days ending with March 14, inclusive, amounted to the stupendous sum of \$2,097,000,000, not including shrinkage of bonds. But facts even more striking are annexed to the amazing sum total. The contraction has not been attended with a single failure save one or two of the most trifling character; not a single railroad has defaulted on its bonds in connection with the downward movement; no railroad property has gone into a receivership; and yet the tremendous shrinkage has been resisted by no such quick combinations of individual capitalists, including the great banks, as in late years have been looked for in times of panic and crisis, while the aid against stress of money rates rendered by the federal treasury has been slight, transitory and incidental. Financial history in the annals of nations may be challenged for such an experience, and in its strange but cheering lights it almost seems as if theories of crises and panics rooted in

political economy would have to be rewritten. Explanations of the anomaly have naturally been many and varied. It has been said that the shrinkage has been a Wall Street contraction, a statement which has its measure of truth but imperfectly explains the absence of failures. It has been said that the railroad securities have been in "strong hands," a welcome fact if it refers to holders that are conservative, disquieting if it means holders who are speculative. More substantial is the reasoning that sets against the downward perturbations of the market, the commercial and industrial prosperity of the land and some recent warnings of financial craft nearing the rocks to reef sail and change tack. But when all these elements have been reckoned up there remains behind us a twelvemonth in railroads of amazing paradox. Disquietude of investors has been bracketed with national prosperity. Vast financial outlays of the railroads to promote public necessity and convenience have been met by legislative attack on the revenues which make such improvements possible. Railroad stocks have fallen in the face of dividends increased, and rights to new stock have connoted such a fall of the old stock, so that the more rights a shareholder has possessed the poorer he has been. Intrinsic value, usually so potential a force, has yielded to strange and fantastic workings of the law of supply and demand. The end is not yet, the major prophets are confused and the minor augurs cannot read the financial viscera. But whatever the outcome of the medley of prosperity at large and Wall Street adversity, of railroad regulation and railroad expansion, and of sharp fiscal contraction without disaster, the final round-up, when it comes, will close an epoch rich in strange phenomena for the analysis of historian and economist.

OUTLOOK FOR PIG-IRON.

[London Iron and Coal Trades Review.]

Although the task of prophesying is in general a thankless one, it is frequently possible to draw a lesson from the past and to apply it arithmetically to the future. In another part of this issue we print two diagrams showing the output of pig-iron in Germany and other countries. These diagrams also show that of late years the output of steel ingots has increased in much the same ratio as that of pig-iron; that is to say, the increase in pig-iron is almost exclusively attributable to the augmentation in the demand for steel ingots; and as a consequence many of the conclusions drawn in respect to the German pig-iron production are also applicable to steel.

It is a significant fact that a diminution in the production of pig-iron in Germany has only taken place in five years—compared with the respective years immediately preceding—during a period of 37 years. These years are: 1874, when there was a decline of 14.7 per cent.; 1876, 9.1 per cent.; 1886, 4.3 per cent.; 1891, 0.4 per cent., and 1901, 7.5 per cent. On the other hand, an increase has taken place in all the other years, and the average advance for the 37 years is 6.3 per cent. If it is assumed that a comparative increase similar to that in the past years may be expected in future years, the astonishing result is arrived at that the production of pig-iron in Germany will have swollen to over 20,000,000 tons in 1914, and to nearly 30,000,000 tons in 1920. No wonder the question arises as to whether it will be possible to provide the necessary raw material.

No one would have ventured to predict eight years ago, when the production was 7,300,000 tons, or even 14 years ago, when the output was less than 5,000,000

tons, that the German make of pig-iron would amount to 12,500,000 tons in 1906. In itself there is no ground for assuming that the development of the German nation and the advance in culture, and consequently the consumption of iron in the whole world, should not progress in the same degree as hitherto. A glance at the map of the world shows that only a small portion of it is today provided with railways. Wood is becoming scarcer, and everything presages its continuous replacement by iron. No limits can be placed upon the production of joists and bars. In addition to this, iron is being increasingly used for shipbuilding, and in the form of wire and tubes for all possible purposes throughout the world.

In the United States, having regard to the output of 25,000,000 tons which that country exceeded in 1906, surprise need not be manifested that Dr. William Kent, in an article published in the *Iron Trade Review*, arrives at the conclusion that that country will reach a production of 67,000,000 tons in 1920 and 528,000,000 tons in 1950! He submits that the final figures will excite astonishment; but who can assert that they are not possible? In itself the statement is not more astonishing than the increase which has actually taken place from 1,000,000 tons to 25,000,000 tons in the United States in the course of the last 42 years.

GOVERNMENT BY IMPULSE.

[Worcester Telegram.]

Government by impulse is closer to inauguration now than at any time since the Indians left Massachusetts. It has taken civil government more than 1000 years to build up the system of government that is the safety and pride of the world. That system recognizes, first of all, the principle of deliberate action on all measures. It provides that individuals of any standing above the criminal may submit any measure to the legislative bodies, and insures its consideration through the series of bodies, with their checks and balances, that have been established for the purpose. That is the right way to get at the same ideas of people. The wrong way is the one provided for in this bill, "To authorize the submission to voters, on official ballots at State elections, of questions of public policy."

The wisest men, as well as the ignorant, are dangerous when acting without having fully and deliberately reflected upon public measures proposed. Experience has time and again shown that the wise, as well as the foolish, need the restraint that accompanies the deliberate and full consideration of public measures that can be had only by legislative bodies and their committees, supplemented or checked by the independent deliberation of an executive. Legislation in any degree by "public opinion" is legislation by brain storm, by impulse, ending in utter contempt for proportion, coherency or consistency. Such a system would transform even the wisest men in the State into a mob and make conditions like those around the Tower of Babel comparatively peaceful and attractive.

COTTON PLANTING.

[Savannah (Ga.) News.]

It is no doubt true that the South could easily double its present output of cotton by adopting more advanced methods of cultivation and fertilization. We have said this many times, and in support of it have called attention to the fact that at the last exhibition at Atlanta one man displayed cotton taken from a field of six acres that had yielded at the rate of four bales to the acre. He expected to get five bales to the acre, but the season had been unpropitious. His success was due wholly to seed selection, cultivation and fertilization. What

he did can be done by practically every cotton-grower in the cotton belt. We do not mean that every farmer can secure a yield of four bales to the acre, but that every farmer can double, if not treble, his cotton output per acre.

It is remarkable that the farmers do not see how much to their advantage it would be to plant less acreage, cultivate it well and pay proper attention to fertilization and seed selection. He would get as much, if not more, cotton from half the number of acres he now plants, and would have enough land left on which to grow supplies for his stock and his table. The profits of his cotton crop, instead of going West to pay for flour, corn and bacon, would go into his bank. He would get rich in a comparatively few years.

No doubt some day the average cotton farmer will realize better than he does now the advantages there are in the intensive system of farming. The agricultural schools that are being established in the congressional districts will aid him in seeing the mistake he is making in spreading his efforts over so much more land than he cultivates as it ought to be cultivated.

Cotton Field Labor.

In a discussion of the tendency of negroes to drift from the cotton fields and of the necessity to devise some means to provide sufficient labor in the negro's place Mr. J. T. Slatter, secretary of the Commercial and Industrial Association of Selma, Ala., writes to the *Montgomery Advertiser* as follows:

"The conditions of our country have changed within the past few years from that of production alone to both production and manufacture. We no longer produce raw cotton for the Eastern spinner and let it go at that; we also spin it and weave it into cloth, thereby creating another drain upon our own labor resources. The seed, which a few years ago were deemed worthless, have become a valuable by-product. The mills, utilizing the seed and weaving the cotton, draw their unskilled labor from the cotton field, and but for the improved methods of cultivation adopted by the progressive planter within the late years, this drain on the cotton field would have shown a remarkable decrease in production, easily traceable to the lack of labor. As it is now, the planter is often put to his wits' end for labor to gather the crop. His difficulty grows more acute each season, and yet but little effort is being made to relieve it. The Southern spinners are close enough to the source of production to foresee the inevitable result and are advocating immigration as a remedy. They should not be alone in this, for the planter is as directly interested, and, all things considered, more deeply concerned than the manufacturer. He should awaken to the fact, while yet there is time, that some speedy provision for the negro's place in the cotton field must be made, or he will have idle lands and no cotton to market in the fall. Our Legislature passed an immigration bill at its last session, and the Governor promptly signed it. This is a start in the right direction. A beginning of the solution; a remedy for an impending cotton collapse. Those watching this immigration department are hopeful of great benefits to come from it. And although its operations will be necessarily restricted and hampered by lack of sufficient means to properly fill its purpose, still, if it but demonstrates the ability to bring relief from the present depressed conditions it will be an easy matter to enlarge its powers, scope and means to a point where we may be able to see daylight penetrating the present dense darkness. South Carolina has awakened to the fact that the only remedy is immigration, and she has taken steps accord-

ingly. Louisiana has read the handwriting on the wall, which threatens to make idle her rich cotton and rice lands, and she has passed wise laws and established commissions to aid and encourage immigration. Alabama has taken a step only in comparison with these two States, but it is a step in the right direction, and shows that we are beginning to realize that something must be done, or our cotton lands will be idle. It proves nothing to say the negro is the best cotton laborer to be had anywhere. If he will not work at the trade, what benefit to it is his efficiency? He may be the best, or the worst, we do not know, for we have tried no other. But the time has come when we have got to try some other or quit cotton-growing. The threatened invasion of the boll-weevil offers no such menace to cotton-growing as the increasing desertion of the plantation by the negro. It is folly to attempt to persuade him to stay; it is criminal to forcibly detain him, and the only wise thing to do is to meet the condition he is forcing upon us by providing a substitute."

The Manufacture and Properties of Iron and Steel. By Harry Huse Campbell, metallurgical engineer for the Pennsylvania Steel Co., Maryland Steel Co. and the Spanish-American Iron Co. Fourth edition. Published by the Hill Publishing Co., 505 Pearl street, New York.

In publishing the fourth edition of this important work the author has gone carefully over the previous ones and eliminated all words, phrases and other matter which he considered unnecessary and has added much new matter which will be found of great interest to steel and iron men generally.

This volume is divided into three parts, part one dealing with the main principles of iron metallurgy, part two with the metallurgy of iron and steel, and part three with the iron industry of leading nations. Part one is a sort of introduction for those who are not metallurgists, and it explains the various methods by which iron and steel are made and describes the principles and other important points governing the processes of manufacture. Part two goes into a detailed description of the different processes of making iron and steel from the primitive to the modern ones, and covers carefully every feature relating to construction, equipment, operation, etc., which it is necessary to follow in making the various classes of iron and steel products. In part four the iron and steel industries of the different nations are described, and the peculiar and important features of these plants are shown. This part also contains a number of important statistics and tables relating to the industry. The volume is replete with illustrations, tables and maps which bring out clearly and emphasize important features. The association of the author with one of the leading steel companies of the country especially fitted him in covering his subject-matter carefully and thoroughly and in such a manner that should appeal strongly from one practical steel man to another. This volume is one that should prove a valuable assistant to every man interested in any way in the production of iron or steel.

Secretary of Commerce and Labor Straus has appointed J. L. Benton of Monticello, Ga., as a special agent to investigate the marketing of cottonseed products in foreign countries. Mr. Benton is secretary of the Cottonseed Crushers' Association of Georgia and a member of the executive committee of the Interstate Cottonseed Crushers' Association.

Mr. G. Gunby Jordan of Columbus has been elected president of the Georgia Immigration Association.

TEXTILES

ADDITIONAL SOUTHERN SPINDLES

A Total of 122,468 Planned in the Past Three Months.

Since January 1 plans for 122,468 additional spindles in the Southern textile industry have been made. Among the new companies projected are two that contemplate the installation of 20,000 spindles each in South Carolina, the State which has been leading the South for years in total number of spindles. Most of the mills reported for January, February and March are to be yarn producers. Of the new spindles announced for the first quarter of the year 80,500 are for new organizations and 41,968 for additions to established mills. Yet the new companies are mostly under the management of experienced men who have been conducting other cotton-mill enterprises successfully.

The total spindles mentioned are figured

Alabama.		Spindles.	Looms.
Alexander City Cotton Mills.....	Alexander City.....	6,500	.....
W. H. Rowe Knitting Co.....	Huntsville.....	2,000	.....
		8,500	.....
Georgia.			
*Southern Manufacturing Co.....	Athens.....	11,000	.....
*Dublin Cotton Mills (double capital \$125,000).....	Dublin.....	5,000	.....
*Kincald Mfg. Co.....	Griffin.....	6,000	.....
		17,000	.....
Mississippi.			
Tate County Cotton Mills.....	Senatobia.....	.....	.....
North Carolina.			
George A. Howell.....	Charlotte.....	.....	.....
*Cherryville Mfg. Co.....	Cherryville.....	.....	.....
Howell Mfg. Co.....	Cherryville.....	5,000	.....
*Gaston Mfg. Co.....	Cherryville.....	5,000	.....
*Gem Yarn Mills Co.....	Cornelius.....	5,000	.....
*Tolar, Hart & Holt Mills.....	Fayetteville.....	1,368	.....
Granite Cordage Co. (50 braidings).....	Granite Falls.....	.....	.....
John Mfg. Co.....	Kings Mountain.....	5,000	.....
Whitnell Cotton Mill Co.....	Lenoir.....	5,000	.....
Everett Cotton Mills.....	Monroe.....	5,000	.....
		29,368	.....
South Carolina.			
Seminole Mfg. Co.....	Clearwater.....	20,000	.....
Ora Mfg. Co.....	Cowpens.....	.....	.....
*Victor Mfg. Co.....	Greer.....	4,000	.....
*Watts Cotton Mills.....	Laurens.....	5,000	.....
*Neely Mfg. Co.....	Yorkville.....	2,000	.....
W. S. Gray & Sons.....	Woodruff.....	20,000	.....
		56,000	.....
Tennessee.			
Valley Cotton & Grain Mfg. Co.....	Harms.....	6,000	.....
C. F. Boyer.....	Newport.....	5,000	.....
		11,000	.....
Texas.			
The Cotton Mfg. Co.....	Hillsboro.....	.....	.....
	
Total for first quarter.....		122,468	.....
*Established mills enlarging.			

COTTON-MILL SUPPLIES.

Machinery Exhibition of American Cotton Manufacturers.

The exhibition of cotton-mill machinery and supplies to be held in conjunction with the eleventh annual convention in Philadelphia, Pa., of the American Cotton Manufacturers' Association will be one of the unique and important features of that gathering. This is the first time that such an exhibition has been held, and from contracts already signed and in prospect there is no doubt as to its ultimate success. The First Regiment Armory, which has been secured for this purpose, contains about 13,000 square feet of available space, exclusive of aisles, and of this amount 8000 square feet have already been taken, 2000 square feet is now under negotiation and the remainder, it is fully expected, will soon be sold.

The exhibition will be opened on May 13, a day before the convention opens, and will end on May 18, a day after the convention closes, thus giving everyone attending the convention plenty of time in which to investigate the exhibits. Those in charge of the exhibition have stipulated that all exhibits must be in place on the day preceding its opening, and have arranged to have the armory open the whole of the preceding week to facilitate the installation.

The character and scope of the exhibits will be wide and varied, embracing all of the latest improvements and inventions in

from the reports of the new and established companies as made to the MANUFACTURERS' RECORD from week to week since the first of the year. They are not in position, but details have been determined and in most instances contracts for both buildings and machinery have been signed, the construction work and installation of equipment to proceed as rapidly as possible. Thousands of these spindles will be producing before the summer ends, and most of them will be ready to do so before 1907 closes. A conservative estimate of the cost of the 122,468 spindles announced between December 31, 1903, and April, 1907, is \$3,000,000. Of this amount, about \$1,000,000 is for additions to established plants and \$2,000,000 for the new mills.

In the tabulated list presented below the MANUFACTURERS' RECORD gives the name, location and number of spindles credited to the various companies reported during the first quarter of the year:

the way of textile machinery and supplies which have been made in recent years, and there is no doubt that the bringing together of such a class of exhibits at a time when those who use them will be assembled for convention purposes will be productive of much benefit both to the manufacturer of machinery and supplies and to the textile manufacturer as well.

That machinery and supply men generally have recognized this advantageous opportunity of placing their products before the textile manufacturers is indicated in the following list of those who have already closed contracts for space: Jones & Laughlin Steel Co., Pittsburg, Pa.; Kip Armstrong Company, Pawtucket, R. I.; Robert Schaeffbaum Company, Providence, R. I.; Philadelphia Lubricator & Manufacturing Co., Philadelphia, Pa.; James H. Billington Company, Philadelphia, Pa.; J. E. Rhoades & Sons, Philadelphia, Pa.; Wm. Sellers & Co., Inc., Philadelphia, Pa.; Schaum & Uhlinger, Philadelphia, Pa.; E. L. Toughton & Co., Philadelphia, Pa.; Thomas Holton's Sons, Philadelphia, Pa.; H. W. Buterworth & Sons Company, Philadelphia, Pa.; Philadelphia Drying Machinery Co., Philadelphia, Pa.; Keystone Lubricating Co., Philadelphia, Pa.; Charles Bond, Philadelphia, Pa.; Bell Pure Air & Cooling Co., New York; Cling-Surface Company, Buffalo, N. Y.; Lord & Nagle Company, Boston, Mass.; United States Gutta Percha Paint Co., Providence, R. I.; American Moistening Co., Boston, Mass.; General

Electric Co., Schenectady, N. Y.; Stafford Company, Reidville, Mass.; T. C. Entwistle Company, Lowell, Mass.; American Warp Drawing Machine Co., Boston, Mass.; Caldwell-Gillard Company, Fall River, Mass.; Textile Machinery Co., Boston, Mass.; Kilburn & Lincoln Company, Fall River, Mass.; Brown-St. Onge Company, Providence, R. I.; Foster Machine Co., Westfield, Mass.; Holyoke Machine Co., Worcester, Mass.; Lowell Machine Shop, Lowell, Mass.; Draper Company, Hopedale, Mass.; Universal Winding Co., Boston, Mass.; National Brake & Clutch Co., Boston, Mass.; Cotton Publishing Co., Atlanta, Ga.; Textile Finishing Machine Co., Providence, R. I.; Easton & Burnham Machine Co., Pawtucket, R. I.; Macrodri Fiber Co., Woonsocket, R. I.; Westinghouse Electric & Manufacturing Co., Pittsburg, Pa.; Haskell-Dawes Machine Co., Boston, Mass.; Tolhurst Machine Works, Troy, N. Y.; Howard Bros. Manufacturing Co., Worcester, Mass.; Mason Machine Works, Taunton, Mass.; American Pulley Co., Philadelphia, Pa.; S. F. Bowser & Co., Fort Wayne, Ind.; Adam Cook's Sons, New York; A. Klipstein & Co., New York; Morris & Co., Groverville, N. J.; Bell Telephone Co., Philadelphia, Pa.; Argute Oilless Bearing Co., Wayne Junction, Philadelphia, Pa.; Gould Manufacturing Co., Seneca Falls, N. Y.; Keystone Telephone Co., Philadelphia, Pa.; Blaisdell Machinery Co., Bradford, Pa.; and John Hetherington & Sons, Ltd., Boston, Mass.

Those in charge of the exhibition are Messrs. T. Ashby Blythe, chairman, 114 Chestnut street, Philadelphia, Pa.; S. H. Steele, secretary, 377 Broadway, New York, and Thomas F. Baker, manager, 114 Chestnut street, Philadelphia, Pa.

The convention will be held at the Bellevue-Stratford Hotel on May 15-16, and indications point to a large and successful gathering, and it is stated that the principal cotton exchanges in the country will be represented and that members of the cotton exchanges of Liverpool, Bremen and Manchester will also be present.

As outlined at present, the program will provide for morning sessions on each of the two days of the convention, afternoons to be devoted to the exhibition, the first evening to a theater party and the second evening to banquet.

Numerous papers will be read and addresses delivered both at the sessions of the convention and at the banquet by men of prominence in the industry and also by men of national repute. Among those who have been announced are Governor B. B. Comer of Alabama, Governor Edwin S. Stuart of Pennsylvania, Commissioner of Immigration Sargeant, ex-Secretary of Treasury Leslie M. Shaw, President W. W. Finley of the Southern Railway and Commissioner of Immigration E. J. Watson of South Carolina.

Arrangements have been made with the various railroads for one and one-third fares for the members of the association, and these tickets will be good from May 11 to May 20, inclusive. Special features for entertaining the delegates and members of their families are also being arranged by the entertainment committee, of which Mr. Miles Hoffman of Philadelphia is chairman, and this committee will also be assisted by a ladies' reception committee.

For the Cotton Trade.

The thirty-third annual edition of "Cotton Movement and Fluctuation" has been issued by Messrs. Latham, Alexander & Co. of New York city, in addition to the usual tables of receipts, consumption, stocks, exports and fluctuations. This valuable publication contains a review of the 1905-1906 season by Ellison & Co. of Liverpool, England, and special articles

on Southern cotton mills, increasing the growth of cotton within the British Empire, cotton production and the world supply and the effect on cotton prices of dealings in futures, portraits of Messrs. J. Stanley Ellison and Henry W. Mears of the firm of Ellison & Co., and photographs of the Mersey docks and harbor board, and the cotton exchange at Liverpool, the railway station at Bombay, India, and weighing cotton in the field. Everyone interested in the many phases of cotton from field to factory will be interested in this volume.

Roxboro Cotton Mills No. 2.

The MANUFACTURERS' RECORD announced last summer the plans of the Roxboro Cotton Mills of Roxboro, N. C., for the erection of an additional mill. It stated that Messrs. C. R. Makepeace & Co. of Providence, R. I., had been engaged as architects-engineers in charge, and were planning a main structure 130x266 feet, engine and boiler house 50x100 feet, warehouse 50x100 feet and 50 tenement cottages for operatives. Construction is now progressing, and the Roxboro company expects to complete the plant in several months. There will be 10,000 spindles in position, with looms to match, for the production of yarns and wide weave cloth of fine texture. About \$200,000 will be the cost of the plant, and it will be known as Long Hurst Mill. Mr. J. A. Long is president.

Rebuilding Knitting Plant.

It has been decided to rebuild the Enfield Knitting Mills, recently burned at Enfield, N. C. The company will erect a one-story structure of brick and cement, 40x160 feet, with firewall in center, making two rooms 40x80 feet each; dyerrooms, 20x50 and 20x30 feet; engine-room, 20x20 feet; boiler-room, 20x20 feet; each department cut off by automatic fire doors. There will be installed, to begin with, 100-knitting machines for the production of double-knee ribbed hosiery, 400 dozen pairs daily. The company will issue \$20,000 of common stock and \$10,000 preferred 6 per cent. stock. Mr. George T. Andrews will be president, and Robert E. Shervette vice-president and superintendent.

Cotton Yarn Mill Needed.

An opportunity for the investment of capital in the Southern cotton-mill industry is indicated in a letter received by the MANUFACTURERS' RECORD from the Columbus Power Co. of Columbus, Ga. Mr. G. K. Hutchins, contract agent of that company, writes: "It may be of interest to you to know that the manager of one of our hosiery mills here is prepared to enter into a contract with anyone who will erect a yarn mill and manufacture the sized yarns he requires for 2000 pounds of yarn per working day. As this would take care of the output of a fairly good-sized spinning mill, we deem it an excellent opportunity for someone to find a customer and start a mill."

Rhodes Manufacturing Co.

The Rhodes Manufacturing Co. of Lincolnton, N. C., has completed its mill recently referred to. It has erected modern buildings and installed an equipment of 5000 spindles and 150 looms for the production of heavy cotton cloth. Manufacturing will begin as soon as the Southern Power Co.'s transmission lines, now under construction, are completed to Lincolnton. The Rhodes Manufacturing Co. is capitalized at \$100,000, and J. M. Rhodes is president.

Proposed Shealey Knitting Mill.

In the MANUFACTURERS' RECORD of March 28 reference was made to E. F.

Shealey of 930 Jackson street, Augusta, Ga., as proposing to establish a hosiery mill and wanting estimates on the cost of machinery, as well as information as to the purchase of the necessary yarns. Mr. Shealey writes that he is now considering details, and will doubtless manufacture half hose and women's and children's full length hosiery. He contemplates an initial output of 100 to 150 dozen pairs daily, and is prepared to correspond relative to placing the production for sale.

Whitnell Company Organizes.

Formal organization of the Whitnell Cotton Mill Co. was effected at Lenoir, N. C., last week, the officers elected being: President, G. L. Barnhardt; vice-president, G. W. F. Harper, and secretary-treasurer, J. L. Nelson. They and Messrs. J. O. White, J. H. Brail and George I. Hooper are the directors. The site for plant has been chosen at Freeland, three miles south of Lenoir. The company was reported in the MANUFACTURERS' RECORD as incorporated for the purpose of building a yarn mill of 5000 to 6000 spindles. Capital stock is \$100,000.

New Century Cotton Mills.

The New Century Cotton Mills of Douglasville, Ga., has been organized with a capital stock of \$200,000; H. L. Johnston of Palmetto, Ga., president, and J. T. Duncan of Douglasville, secretary-treasurer. This company intends to install 7000 spindles, utilizing for its purpose a building previously erected. The building is two stories high and has 80,000 square feet of floor space. This proposition was mentioned in the MANUFACTURERS' RECORD of February 14.

Doubling Its Mill Building.

The Royall Cotton Mills of Wake Forest, N. C., has awarded contract to Messrs. Wittingham & Fries of Greensboro, N. C., for the erection of an addition that will double the size of present mill structure and permit an increase of spindles to 15,000. This company is at present operating 7264 spindles on the production of sheetings and lace curtain yarns, and it is presumed it intends adding to its spindleage as soon as the addition mentioned is completed.

Wants Light-Weight Yarns.

The Translucent Fabric Co., Quincy, Mass., wants light-weight cotton yarns, such as Nos. 26 to 30 or 32.

Textile Notes.

It is reported that the Efrid Manufacturing Co. of Albemarle, N. C., will add 1500 new spindles.

Mr. A. J. Henderson of Hampton, Ga., is reported as to build a mill for the manufacture of cotton yarns.

Reports say that the Hampton (Ga.) Cotton Mills contemplates doubling present capital stock, which is \$200,000.

The Grantville (Ga.) Hosiery Mills has executed a deed of trust securing an issuance of bonds to the amount of \$50,000.

Messrs. W. D. Farris, J. P. Chambers and associates of Ennis, Texas, propose organizing company to build a cotton mill.

The Virginia Consolidated Milling Co. of Petersburg, Va., expects to install new water-wheels during the summer. It operates several cotton mills.

It is understood the Efrid Manufacturing Co. of Albemarle, N. C., contemplates building another plant, not adding to spindleage, as recently reported.

The Salisbury (N. C.) Cotton Mills is reported to have awarded contract to D. K. Cecil for the erection of a 60x100-foot brick addition. This company is operating 20,000 spindles and 592 looms.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

ST. LOUIS TO KANSAS CITY.

McKinley Electric System to Build a Line—Large Terminal Plan.

The Illinois Traction Co., or, as it is sometimes called, the McKinley Interurban Railway System, proposes to build an extension into St. Louis, and will, according to a report from that city, spend \$5,000,000 to prepare facilities. A local organization has been formed by the McKinley corporation called the St. Louis Electric Terminal Railway Co., and plans have been prepared for a new bridge to cross the Mississippi river between St. Louis and Venice, Ill. Three passenger stations, besides other buildings and terminal yards, will have to be erected.

The company, it is further stated, also proposes to build an electric line from St. Louis to Kansas City, Mo., and as soon as President W. B. McKinley, whose residence is at Champaign, Ill., returns from Panama plans will be discussed for this proposed extension. A general survey, it is said, has been made, but plans have not yet assumed any definite shape. The company's line between St. Louis and Chicago is to be completed this year. At present it has 500 miles of track in operation.

The plans for the terminals in St. Louis are extensive, and will take some time to fulfill. The bridge is to be a very heavy, substantial structure, with a double-track line in addition to roadway and sidewalks. The company has 24 acres of land in St. Louis, on which it proposes to build a freight station, car sheds, repair shops, yards, etc. L. E. Fischer is vice-president and general manager at Champaign, Ill.

New Equipment, Rails, Etc.

The New Orleans Belt Railroad Co. will, it is reported, purchase two switch engines and 1200 tons of steel rails. J. W. Porch is president of the commission which controls the line.

The Norfolk & Southern Railway Co., it is reported, has received four 10-wheel freight locomotives from the Baldwin Works.

The Pennsylvania Railroad, according to a report from Philadelphia, will either purchase or construct within the next three years 2000 all-steel passenger cars. The company will, it is said, build about 200 of these cars this year, and has reserved space for 150 of them with the American Car & Foundry Co.

The New Orleans Great Northern Railroad has received four new freight engines.

A report from Philadelphia says that the deal for the purchase of the Wason Manufacturing Co. of Springfield, Mass., by the J. G. Brill Company of Philadelphia has been closed. The Wason plant is one of the oldest car factories in the country.

The Pennsylvania Railroad, east and west, is reported to have ordered 60 freight locomotives, 30 switching locomotives, one Pacific type locomotive and six Atlantic type locomotives. All these are for 1907 delivery. They will be built at the company's shops.

The Morgantown & Kingwood Railroad is reported to be getting prices on 600 steel coal cars.

The Pennsylvania Railroad is reported to have ordered 700 box cars and 50 stock cars to be built at its shops; also two dining cars from the Pullman Company.

The Chicago, Rock Island & Pacific Railway, it is reported, has ordered from the American Car & Foundry Co. 103 box cars and 179 furniture cars.

The Brinson Railway has ordered from the South Atlantic Car & Manufacturing Co., Savannah, Ga., 15 flat cars of 60,000 pounds capacity.

The Baldwin Lumber Co. at Baldwin, La., has let a contract for 20 narrow-gauge logging cars to the Orange Iron Works of Orange, Texas.

The Illinois Central Railroad, it is reported, will purchase 15 passenger coaches and two dining cars.

The Fort Smith Lumber Co. of Adona, Ark., is reported to be about to buy logging cars.

The Georgia Machine & Equipment Co. of Atlanta, Ga., desires to purchase, according to a report, several standard flat cars, second-hand.

B. & O.'s New Construction.

The Baltimore & Ohio Railroad Co. has some important work under way and in contemplation. It is building another large new freight pier at Locust Point in Baltimore that will cost \$400,000. It has also ordered improvements costing about \$500,000 at Riverside, Baltimore, and it has begun construction on an addition to the freight yards at Brunswick, Md., which will increase the yard trackage from 24 miles to 57 miles and the yard capacity from 2500 cars to over 6400 cars. This latter will cost about \$1,000,000.

The new freight pier will be known as No. 8. It will be two stories high, and will have about 300,000 square feet of floor space. It will also provide room for three of the largest steamers entering the port of Baltimore. The work at Riverside includes the erection of two roundhouses, each with 26 stalls, one of the buildings being for passenger engines and the other for freight engines. There are also two turntables of 80 feet each, a power-house 100 to 250 feet, oilhouse 30x55 feet. These buildings will be composed of brick, steel and concrete, and the offices and shops will be heated with steam. Construction has begun.

At Wheeling and Parkersburg, W. Va., much work is being done by the company in the way of enlarging freight terminals. This work at Parkersburg also includes some new buildings, and at Wheeling, as heretofore reported, a new passenger station is being built.

Coast Line, Seaboard and Southern.

The recent sale of the Macon, Dublin & Savannah Railroad to Seaboard Air Line interests has been explained by an announcement from New York to the effect that when the Atlantic Coast Line bought the road it was its purpose to extend it by building from Macon to Atlanta, but that an arrangement had been made with the Central of Georgia Railway by which the Coast Line gets a southern entrance to Atlanta via Albany and Macon. This arrangement rendered an extension unnecessary, and the road was sold to the Seaboard. Now, as heretofore announced, the Seaboard is about to make an arrangement with the Southern Railway for the use of its tracks between Macon and Atlanta and the talked-of extension of the Macon, Dublin & Savannah by its present owners will not, it appears, be made. Thus it seems likely that there will not be any new line between Atlanta and Macon, the only increase of facilities that might be made being a double-tracking of the Southern line.

Railroad Reports.

The Gulf & Ship Island Railroad reports for February, 1907, gross earnings, \$205,086; operating expenses and taxes, \$153,328; net earnings, \$51,758. The figures for February, 1906, were gross, \$179,342; net, \$58,456. For eight months ended February 28, 1907, gross earnings,

\$1,612,867; net, \$376,029. For the same period in 1906 the figures were gross, \$1,367,068; net, \$449,372.

The Louisiana & Arkansas Railway reports for February, 1907, gross, \$92,735; operating expenses and taxes, \$66,750; net, \$25,976. For the same month of 1906 the figures were gross, \$94,700; net, \$34,586. For eight months ended February 28, 1907, gross, \$768,615; net, \$218,018. For the corresponding period of 1906 gross, \$647,333; net, \$242,734.

These figures are furnished by Fisk & Robinson of New York, Boston and Chicago.

Tram Road Over a Mountain.

Messrs. Williams & Farrier, Pearisburg, Va., informs the MANUFACTURERS' RECORD that contracts have been signed between the Biggs-Wilson Lumber Co. of Huntington, W. Va.; Joel Beckwith of Parkersburg, W. Va.; Martin Williams and M. P. Farrier of Pearisburg, Va., for the building of an incline tram road immediately over Wolf Creek mountain from Talmash. By this means a large amount of timber land on No Business creek will be developed and the product delivered by way of the New River, Holston & Western Railway.

The firm also says: "We have purchased about 5000 acres of good timber lands, and will manufacture staves and lumber.

"We are in the market for three miles of 16-pound relay steel rail."

Pensacola & Northeastern.

A dispatch from Pensacola, Fla., says that a party of engineers has arrived there to make a survey for the proposed Pensacola & Northeastern Railroad from Pensacola, Fla., to Andalusia, Ala., 70 miles. The route of the line follows an old railroad plan on which some grading has been done. New York and local capitalists are promoting the project, and it is proposed to build without delay. On March 1 \$15,000 were deposited in a local bank as a guarantee. Among those interested are J. L. Miller, C. M. Gordon, John E. Habach and W. F. Scott. Offices have been established at Pensacola.

These gentlemen are also interested in the proposed Pensacola, Alabama & Western Railroad, which is to run from Pensacola to Meridian, Miss., and Memphis, Tenn.

The Texas Railroad.

Mr. M. D. Carlock writes from Wimsboro, Texas, to the MANUFACTURERS' RECORD concerning the Texas Railroad Co. He says: "The object of this corporation is to build a line from Wimsboro to Mt. Vernon, Texas. The officers have not been selected. The length of the line will be 17 miles. A connection from Wimsboro will be had with the Missouri, Kansas & Texas Railway Co. and the Texas Southern Railroad Co., and at Mt. Vernon with the Cotton Belt Railway Co. The country through which the line will pass is agricultural, and is devoted to fruit and truck farming. The directors are M. D. Carlock, C. H. Morris, J. M. Lankford, George D. Hurdle, J. H. Rhodes, John McMillan and T. G. Carlock. The engineer has not been selected.

Winston-Salem Southbound.

A report that the Winston-Salem Southbound Railway Co. had disposed of its interests to the Southern Railway is denied by President Fries of the Southbound. This corporation, which has done some construction on its proposed line from Winston-Salem to Wadesboro, N. C., has stockholders as follows: C. A. Reynolds, Henry E. Fries, Jas. K. Norfleet, H. A. Pfohl, J. C. Buxton, W. F. Shaffner, E.

B. Jones, F. H. Fries, H. F. Shaffner, W. T. Brown, A. H. Eller, P. H. Hanes, R. W. Gorrell, Geo. T. Brown, W. M. Nissen, all of Winston-Salem; G. W. Huntley of Wadesboro, N. C.; G. W. Montcastle, Lexington, N. C.; S. H. Hearne, Albemarle, N. C.; F. C. Robbins, Lexington, N. C.

Southwestern Betterments Planning.

Reports from St. Louis say that the Southwestern systems operating from there are considering plans for general improvements to their lines that will require the expenditure of several hundreds of millions of dollars. This work will include double-tracking, reduction of grades and enlargement of terminals, besides additions to equipment. While nothing specific is mentioned concerning any particular line, it seems that the companies contemplate entering upon a very extensive campaign of general upbuilding of their properties.

Roanoke River Railway.

Mr. G. W. Marrow writes from Bullock, N. C., to the MANUFACTURERS' RECORD that the Roanoke River Railway Co. has bought the entire holdings of the North Carolina Connecting Railway Co. and proposes to begin construction immediately. The officers of the new company are G. W. Marrow, president; W. E. Trenchard, vice-president and general manager; T. G. Trenchard, secretary; J. T. Marrow, treasurer and auditor. These gentlemen are also directors, and V. C. Tompkins and Mr. Tally are likewise members of the board.

Rockingham & Caswell.

Mr. R. T. Williams writes from Reidsville, N. C., to the MANUFACTURERS' RECORD that the correct name of the railway in which he is interested is the Rockingham & Caswell Railroad, but as yet no organization has been perfected and the Western terminus has not been definitely selected. The road will run from Yanceyville, in Caswell county, west into Rockingham via Reidsville, Wentworth and Spray, and will tap the Norfolk & Western Railway at or near Stoneville, N. C.

Incline and Bridge Work.

The Union Bridge & Construction Co. of Kansas City, Mo., informs the MANUFACTURERS' RECORD that the company has been awarded the contract for building a trestle incline at Baton Rouge, La., and also for putting in concrete piers and abutments for bridges across Bayou Gross Tete and Bayou Cortabean. This work is on the line of the Colorado Southern, New Orleans & Pacific Railway, which is to enter New Orleans.

Swift & Co. Not Interested.

Messrs. Swift & Co. of Chicago deny the press report that they are interested in a plan to build a railroad from Crockett, Texas, westward, probably to Waco. They write the MANUFACTURERS' RECORD saying that they never heard of this railroad plan.

Railroad Notes.

The Mobile, Jackson & Kansas City Railroad Co. has issued a new timetable which includes a map of the system and a list of sawmills along its lines.

The Kanawha & West Virginia Railway is reported to have begun operating regular passenger trains between Charleston, W. Va., and the headwaters of Blue creek.

The Louisville Traction Co. of Louisville, Ky., is to hold a meeting on April 13 to vote on a proposition to increase the capital stock from \$12,000,000 to \$15,000,000.

Alexander Robinson, general manager of the Western Maryland Railroad, has

been elected vice-president of the company, having that title in addition to that of general manager.

Press reports from Hattiesburg, Miss., say that the Atlanta, Birmingham & Atlantic Railway is making preliminary survey for a line from Birmingham, Ala., to Waynesboro, Miss., and Baton Rouge, La.

The Southern Railway is reported to have completed 20 miles of double-track work between Atlanta, Ga., and Austell Station. The new track will shortly be opened for service. Curves and grades have been reduced in making the improvement.

The Maryland, Delaware & Virginia Railway Co., which operates railroads and steamboats in the three States named in its title, has issued its second annual report, showing gross earnings, \$741,241; operating expenses, \$711,292; net earnings, \$29,949. The company is controlled by the Pennsylvania Railroad.

President A. H. Kennedy of the Owensboro & Rockport Bridge & Terminal Co. writes from Rockport, Ind., to the MANUFACTURERS' RECORD that the company, which will have headquarters at Owensboro, Ky., will build a bridge over the Ohio river and 10 miles of track and terminals at a cost of about \$2,000,000. W. D. McLaughlin of Evansville, Ind., is the engineer in charge.

The new bridge of the St. Louis Southwestern Railway over the Red river at Shreveport, La., has been opened for business. The opening of the bridge was marked by a celebration in which officials of the railroad company and of the city took part. The bridge cost about \$400,000, but the company also spent for other improvements at Shreveport \$350,000 more. The bridge took two years to build.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

Machinery Wanted in Sweden.

Magnus Hellstrom, care of A. Hansson, Linnegatan 21, Stockholm, Sweden, wants catalogues and other literature on the subject of earth and stone handling machinery, concrete construction machinery and equipments for digging small canal. The party named has large contracts covering railroad and general construction.

Wants "Balata" Belting.

Oyanguren y Guevara, Barroeta Aldmar 2, pral, Bilbao, Spain, wants to correspond with manufacturers of "Balata" belting.

To Develop 15,000 Horse-Power.

The MANUFACTURERS' RECORD has received advices regarding the plans of the Broad River Power Co. of Elberton, Ga., which has been incorporated during the past week by Messrs. A. S. J. Stovall, E. B. Tate, I. G. Swift, A. S. Oliver and associates. The company proposes to develop water-powers on the Broad, South Broad and North Broad rivers for transmission by electricity, and expects to obtain 15,000 horse-power. Three or four dams will probably be built, but the engineer in charge has not been engaged, and details are yet to be decided. Elberton, Bowman, Comer, Royston, Carlton and Athens, Ga., are to be furnished the electricity for power and lighting purposes. The company has a capital stock of \$250,000, and \$50,000 is said to have been paid in.

It is stated that A. L. Jackson of Tallapoosa, Ga., is interested in plans for building a cotton mill.

MECHANICAL

Recent Scherzer Rolling-Lift Bridges

In recent years there has been a tendency in the United States and abroad to replace center-pier swing bridges with modern bascule bridges. The disadvantages of the swing bridge are claimed to be overcome by the modern Scherzer rolling-lift bridges.

An article on bridges of this type was published in December, 1904, illustrating and describing the double-track Scherzer rolling-lift bridge at that time completed and placed in service for the Newburgh & South Shore Railway Co. across the Cuyahoga river at Cleveland, Ohio. In connection with that article a plate showed the location of the new bridge and the adjacent single-track center-pier swing bridge of the C. T. & V. Railroad, a constituent of the Baltimore & Ohio.

The success of the Scherzer bridge constructed for the Newburgh & South Shore induced the Baltimore & Ohio to decide to remove its center-pier swing bridge and replace same with a double-track bridge of the Scherzer type. The new bridge is virtually of the same dimensions as the Newburgh & South Shore bridge, the principal difference being in the method of counterweighting. In the latter bridge the counterweight consists of a concrete composition enclosed and protected by steel plates. The bridge consists of a simple truss, the movable span being 160 feet center to center of bearings. It is designed to carry the heaviest modern railroad loadings. It is operated by electric motors.

Fig. 1, herewith, shows the bridge during erection while nearing completion. It was erected in the upright position. In the foreground is the Newburgh & South Shore Railway Co.'s bridge in closed position. The new Baltimore & Ohio bridge was placed in service in September, 1906. It was constructed under the charge of J. E. Greiner, assistant chief engineer of the Baltimore & Ohio system. The Scherzer Rolling Lift Bridge Co. of Chicago, Ill., furnished the designs, plans and specifications for the superstructure, operating ma-

single-track swing bridge on its main lines through that city. The base of rail of this bridge will be 70 feet above the river. Only a partial opening of the new bridge will therefore be required for even the tallest-masted vessels.

The Baltimore & Ohio Railroad Co. is

Scherzer type are under construction for this railroad company across Neponset river, Massachusetts; Niantic river, Connecticut; Seekonk river, Rhode Island, and six-track bridges across the Bronx river and across Eastchester bay, New York. All of these new bridges take the place of

is furnishing designs, plans and specifications and consulting engineering service indicate that the coming year will be more active and will call for a larger tonnage of structural steel, machinery steel and electrical, gasoline and other power equipments than during previous years.

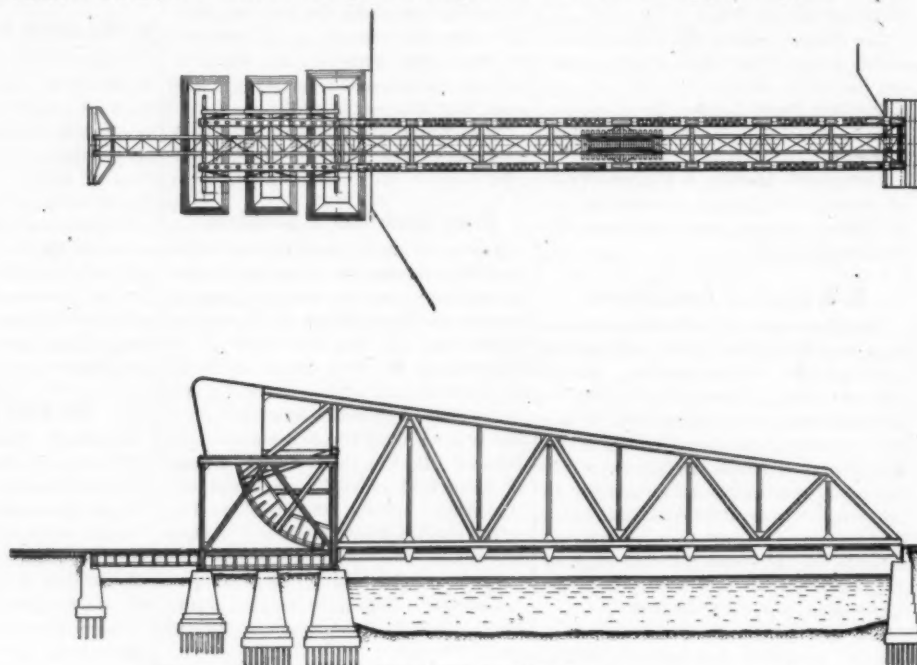
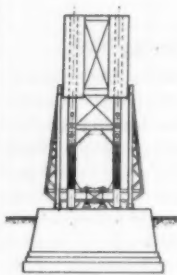


FIG. 2.—SCHERZER ROLLING-LIFT BRIDGES.

constructing a very long-span single-leaf Scherzer bridge to take the place of a center-pier swing bridge across the old channel of the Cuyahoga river. The new bridge is being erected in its open position, and does not interfere with or delay either the railroad or vessel traffic through the old swing bridge.

The movable span is 230 feet long, measured from center to center of bearings. General design and dimensions shown in Fig. 2, herewith. It is the longest span single-leaf bascule bridge yet constructed. It is only exceeded in length of span by the double-leaf Scherzer bridge in

center-pier swing bridges. They are designed to carry with increased safety the greatly expanding passenger and freight traffic of the railroad and facilitate traffic over the company's electrified lines.

Substantial progress is being made in the construction of the two double-track Scherzer bridges for the Norfolk & West-

Blount Office Building.

Herewith is presented a view of the new Blount Office Building at Pensacola, Fla. The structure has just been completed, and is Pensacola's first skyscraper. It is faced with beautiful buff-colored press brick, manufactured by Sib-

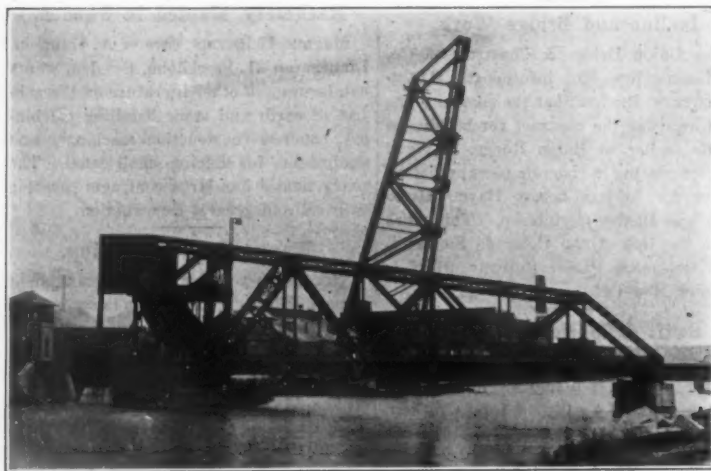


FIG. 1.—SCHERZER ROLLING-LIFT BRIDGES.

chinery and operating equipment, also furnishing consulting engineering services. The King Bridge Co. of Cleveland, Ohio, was the contractor for the superstructure.

A duplicate of this bridge is now being constructed for the Government Railways at Port Soudan, Africa. Two similar double-track Scherzer bridges are being constructed for Buenos Aires Great Southern Railway at Buenos Aires; also a long-span double-leaf bridge for Burma Railways, India.

The New York, Chicago & St. Louis Railway is constructing a similar double-track Scherzer bridge across the Cuyahoga river at Cleveland to take the place of a

operation across the Chicago river at the entrance to the Grand Central Station, constructed in 1900, the movable span, center to center of bearings, of this bridge being 275 feet. The long spans in both of these instances are required because the railroad tracks cross the channel at acute angles.

The four-track Scherzer bridges constructed for the New York, New Haven & Hartford Railroad at Coscob, Conn., and at Westport, Conn., and the first double-track portion of the four-track Scherzer bridge across the Housatonic river have all been placed in service within the past year. Other four-track bridges of the



BLOUNT OFFICE BUILDING, PENSACOLA, FLA.

ern Railway over the Eastern and Southern branches of the Elizabeth river at Norfolk, and upon the two similar bridges for the Brooklyn Rapid Transit System, Brooklyn, N. Y.

Other railroad, electric railway and highway Scherzer rolling-lift bridges for which the Scherzer Rolling Lift Bridge Co.

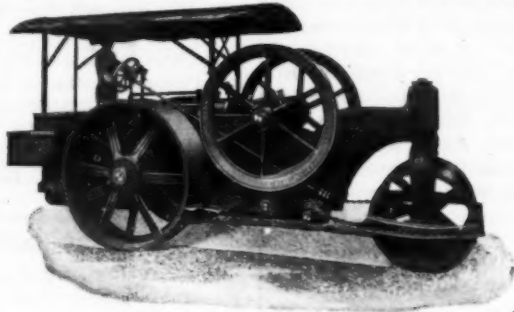
ley-Menge Press Brick Co. of Birmingham, Ala., which is also furnishing the same shade of buff brick for the new City Hall and Osceola Club at Pensacola, and manganese speckled brick for the palatial residence now being erected by W. A. Blount on the Bay Shore at Pensacola. Sibley-Menge brick has been recently

specified for the N. J. Bell 10-story office building at Montgomery, Ala.; Masonic Temple at Atlanta, Ga.; Citizens' Bank Building at Tampa, Fla.; courthouses at Franklin, La.; Ellisville and Laurel, Miss.; Ashburn and Hawkinsville, Ga. Mr. Frederick Ausfeld of Pensacola was the architect for the Blount building.

American Motor Road Roller.

In presenting to the road builders of America the highly developed and modern type of road roller, illustrated herewith, the builder claims to offer a machine that marks an epoch in road engineering.

Recognizing the desirability of some improved departure from the old lines in road rolling, the Austin Manufacturing Co. made a thorough investigation of



AMERICAN MOTOR ROAD ROLLER.

the whole question, covering methods, material and every type of rolling machinery in use.

In probing the matter its efforts were not confined to America alone. Its experts visited European countries and got all that was latest and best in the rolling of macadam roads, more especially in Great Britain, Germany and France, where the roads are undoubtedly the finest and the system and methods used the nearest to perfection.

In France and England, where the roads are under Government control, steam rollers, it was found, were being rapidly discarded and motor rollers adopted in their stead. The French Government has 10 motor rollers in use in one department and has decided to buy nothing else in the future.

In view of the greatly improved work done by motor rollers abroad, and the state of perfection to which the gasoline engine has been brought in America, the company reached the conclusion that the

most carefully considered and executed policy. Nothing has been left to experiment, but knowledge from every available source has been brought to bear.

The valuable experience represented by the modern steam rollers has not been ignored, but the best points of all have been reviewed and turned to account in the new design. The same applies to the best gasoline engine practice.

The American motor road roller is made in four sizes—7, 10, 12 and 15 tons. Its features are detailed by the builder as follows: "It carries out all its operations, without smoke, steam, sparks or soot blowing about; without loss of time raising steam; without water; without a specially licensed engineer; without the expense of teams and men to furnish water; without risk of boiler explosion;

without the expense of teams and men to haul coal; without laying up for boiler repairs. A small sized tank will hold three months' fuel. It can be operated by gasoline or denaturized alcohol. It will haul a scarifier, grader, road plow, stone wagon or portable crusher; will furnish power to operate a rock crusher or other machine.

"It has a powerful trussed frame made of heavy steel plates, which is especially designed to act as a frame and nothing else. It has only to carry the working parts and is practically everlasting.

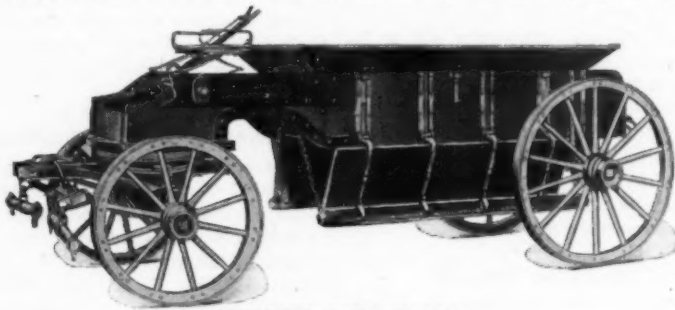
"Any wearing part can be easily and quickly removed from this frame.

"This characteristic alone stands for extra life and economy."

For detailed and illustrated catalogue, address the Austin-Western Company, Ltd., Chicago, Ill.

Improved Dump-Wagon.

Since the Studebaker Vehicle Works had its beginning 55 years ago in a coun-



IMPROVED DUMP WAGON.

ideal roller of the future would be a motor road roller.

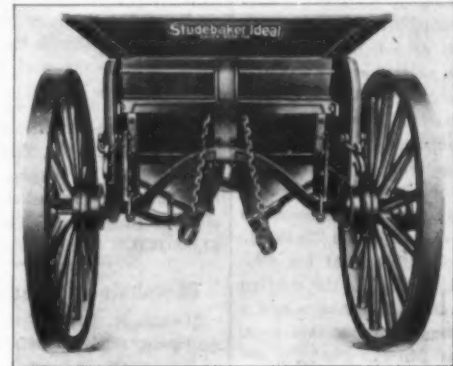
Steam for the purpose of road-rolling was first applied about 50 years ago, when an ordinary traction engine was converted to such use by the simple expedient of furnishing it with smooth-tired wheels in place of the stripped traction rims. With some modifications in detail this type (so crudely evolved) has been in undisturbed possession of the field for power rollers until recently.

Starting from these data, the Austin Manufacturing Co. has produced the American motor road roller, the perfection of which has been attained by the

try blacksmith shop at South Bend, Ind., it has always been progressive. President J. M. Studebaker said in a public address last summer that he never yet had seen the time when he could say he was satisfied, and he never expected to see it. It has been this constant endeavor to do things just a little better that has been largely instrumental in maintaining the high standard of efficiency and quality of Studebaker products.

For several years past the company has been making an exhaustive study of the dump-wagon question, and today offers a dump-wagon to satisfy every requirement.

The wheels on the "Improved Studebaker Ideal" are built to stand up under the hardest kind of wear. The front gear has full circle oscillating fifth wheel. This permits the front wheel on either side to drop into a depression or run over



IMPROVED DUMP WAGON.

an obstruction without disturbing the level of the body. The load is drawn directly from the front axle instead of from the hounds—a most worthy improvement. The rear axle is arched, thereby permitting shorter coupling, consequently lighter draft, and also insuring clearance, making it impossible to stall a team on the dump.

The dumping attachment is operated from the driver's seat. It is very simple, and absolutely positive in its action. A chain is attached to the front roller, and passing down over rollers to one of the trapdoors, follows along its entire length; thence over rollers and a pulley attachment to the rear end of bed and along the full length of the other door and back again to the front roller, making practically an endless chain. One end of this chain, winding upon a slightly larger roller circumference than the other, closes one door in advance of the other.

The bottom doors are covered with a high quality of heavy sheet steel. Over first this steel projects about one and the inside edge of the trapdoor closing one-half inches, so that when the doors are closed this projection laps over the other door, effectually closes the opening and makes a tight bed that will not leak. By the use of the endless chain device for closing the trapdoors all necessity for adjustment of any kind is avoided and the doors are always tightly closed.

Attached to the dumping lever is a safety device to prevent accidentally dumping the load.

The trapdoor sills are made of heavy angle iron, and underneath them passes the endless chain. Metal loops serve to retain the chain in place. The trapdoors are suspended by four, instead of three, heavy hinges on each side. The body is made of well seasoned, bone-dry hard wood.

The wagon is made in two sizes, one and one-half and two-yard capacities, respectively; stroke measure. Two views of it are shown herewith.

Painting and Whitewashing Machines.

The general cleaning up and painting of manufacturing industries is greatly facilitated nowadays by the use of modern whitewashing and painting machines. The Binks "Star" machines are manufactured by the Star Brass Works, 12-14 South Jefferson street, Chicago. One of the company's machines is herewith illustrated. It is offered to do the work of 16 men with brushes; it is mounted on a heavy truck platform, with 30-gallon galvanized iron tank, provided with their improved agitator, which keeps the liquid in constant agitation while being applied.

The pump itself has working parts made entirely of brass, so that they will not corrode from the use of any liquids.

Whitewashing and painting by this process is a vast improvement over the old style brush work, the liquid being de-

livered from the nozzle in the form of a fine mist, and is forced into every crack and crevice that would be impossible to reach with a brush.

Whitewash and cold water paints, when applied to buildings of mill construction,



PAINTING AND WHITEWASHING MACHINE.

acts as a fire retarder, consequently reducing insurance rates.

The company manufactures 12 different styles and sizes of these whitewashing and painting machines, and its catalogue illustrates and describes them.

Draining Louisiana Lands.

Regarding the recent report that the North American Land & Timber Co. of Lake Charles, La., will build additional canals, the MANUFACTURERS' RECORD has received the following statement from H. G. Chalkley, the company's manager: "We already have in operation about six miles of canal, running from Calcasieu lake to Sweet lake, an inland lake, and we are going to construct another 10-mile section from Sweet lake to Lake Misere. Lake Misere itself is six miles long and connects by a bayou with the Lacasine, which river also runs into Grand lake and which Grand lake connects with the Mermentau river. The work is being done by ourselves, and the writer is personally supervising the work. It is a little problematical as to the amount of land we will drain, and this canal is only the start of a large system, as we expect to drain hundreds of thousands of acres of marsh land, the company owning in Cameron parish alone some 600,000 acres of marsh land, which, with a little drainage, cannot be beaten for pasturage. The part of the canal already built is used for transportation and irrigation purposes in connection with a large farm which we own at Sweet lake, and the canal we are now building is simply a continuation of our development schemes already commenced."

MINING

Mt. Morgan Coal Co.

Vice-President W. T. Underwood of the Mt. Morgan Coal Co. of Bristol, Va., which was recently reported as organizing with a capital stock of \$220,000, writes the MANUFACTURERS' RECORD that the company has been developing coal mines for seven or eight years, but has recently reorganized and secured a Virginia charter. It owns about 2000 acres of coal lands near Williamsburg, Ky., and is developing the Jellico seam, at present producing about 10 or 12 carloads per day. Mr. Underwood states that the cessation of work on the Louisville & Nashville Railroad will probably prevent his company securing a spur track to the western side of its lands and opening new mines, a development contemplated for this year. Officers of the Mt. Morgan Coal Co. are Messrs. T. B. Mahan, Williamsburg, Ky., president; W. T. Underwood, Lexington, Ky., vice-president; M. H. Maury, Williamsburg, Ky., general manager, and S. E. Mahan, secretary and treasurer.

Coke from Pocahontas Field.

According to a statement of coke shipments from the Pocahontas flat-top field of West Virginia, as prepared by the Corzer Land Association of Elkhorn, W. Va., this region has produced an aggregate of 17,256,499 gross tons, covering a period of 24 years, from 1883 to 1906. In 1883 the tonnage of the field aggregated 19,805, while that for 1906 amounted to 1,846,643. As compared with the tonnage of 1905, when it amounted to 1,926,473, the tonnage of 1906 shows a decrease of 79,830.

Baltimore's Coal Shipments.

Coal exports from Baltimore, Md., during March amounted to 32,809 tons, a decrease as compared with March, 1906, of about 4000 tons. Exports of coke amounted to 6400 tons, as compared with shipments of 4629 tons for March, 1906. The total value of the coal and coke exports for the month is estimated at \$110,000.80. During the first three months of 1907 exports of coal aggregated 128,778 tons and coke 17,532 tons, the total value of which was \$303,464.80.

To Develop Florida Phosphate.

A proposition for the organization of a phosphate development company to operate in Florida is outlined in a letter to the MANUFACTURERS' RECORD from E. F. Coney of Brunswick, Ga. Mr. Coney says he is interested in a body of land in Florida estimated to contain 2,000,000 tons of pebble phosphate, 68 per cent. and upwards bone phosphate. It is his intention to organize a corporation with capital stock of \$250,000 to develop the property, but no details have been determined.

Lead and Zinc Shipments.

A report from Joplin, Mo., as to the shipment of lead from that district for the week ended March 23 states that the valuation was \$40,000 greater than for any previous week of the year, and that the total valuation of both lead and zinc ore for the first 12 weeks of the year shows an increase of about \$1,000,000 over the corresponding period last year.

Coal and Clay Development.

The Moss Rock Coal Co. of Barboursville, Ky., has been organized with a capital stock of \$10,000 by Messrs. D. W. and C. F. Clark and G. W. Taylor for the purpose of developing coal lands in the vicinity of Barboursville. The company, it is stated, has secured property on the Louisville & Nashville Railroad, and arrangements have been made for the immediate

development of the coal veins, together with a deposit of fire-clay.

Testing Maryland Coal.

A dispatch from Cumberland, Md., states that experiments are being made with coal from the vicinity of White's creek, on the northern border of Garrett county, with a view to testing its value for coke. A coke plant of 32 ovens is contemplated to be erected.

Messrs. Kendal V. Stockley of Philadelphia, Pa.; Charles P. Tasker of Claymont, Del., and E. B. Waples of Wilmington, Del., have incorporated the Piedmont Mining & Milling Co., with a capital stock of \$1,500,000.

Phosphate and Fertilizer Notes.

Messrs. R. L. Kimbrough, Charles W. Anderson, O. L. Wood, A. G. Thompson and E. N. Kimbrough have incorporated the People's Phosphate Co. of Mt. Pleasant, Tenn., with a capital stock of \$100,000.

The Commissioner of Agriculture for Alabama reports the sale of 290,321 tons of fertilizer for the six months ended March 31, an increase of 7161 tons over the corresponding period last year. For these sales the State received a tag tax of \$87,066.30, an increase over last year of \$2148.30.

Texas Oil to Mexico.

An experimental shipment of 2786 cases of petroleum has been made to Tampico, Mexico, by refiners of Port Arthur, Texas. A dispatch from Port Arthur to the *Galveston News* says:

"This is a special production which was put up as ordered by the purchaser, and should it fill the requirements a large quantity of this oil will be manufactured and shipped to Mexico, which will mean a large increase in the business of the Mexican-American Steamship Co. from this port, as well as offering additional market for the enormous amount of oils manufactured by the two large refineries at this place, whose output is now taxing their transportation facilities to their utmost, notwithstanding tank steamship lines with a total cargo capacity of about 25,000,000 gallons are in service between this port and Northern ports. An order has been placed by the J. M. Guffey Petroleum Co. for another large tank steamer with a cargo capacity of 2,500,000 gallons. This vessel, however, is being added to their line for the purpose of caring for the increase in production when the Gulf pipe line from the Indian Territory is completed. Additional markets for the oil products of this city are constantly being opened up. The European trade has shown a very large increase within the past 12 months, but thus far no very extensive oil trade has been established in Mexico by the refiners of this city. However, at present the outlook for this trade is good."

For Architects to Compete.

An interesting competition among architects is now under way for the design of the new building of the Bureau of American Republics, which is to be erected in Washington, D. C. The cost of the building is to be about \$600,000, all of which was donated by Andrew Carnegie. The competition will be open to all architects residing in the United States, and prizes to the value of \$3000, \$2000 and \$1000 will be given outside of the accepted design. In order to insure the entrance of the leading architects of the country, 10 of these will be selected and paid \$1000 to cover the expense of entering the competition. Mr. John Barrett is director of the bureau.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Vehicle Manufacturers.

A joint meeting of the Southeastern department of the National Wagon Manufacturers' Association and of the Southern Vehicle Association was held at the Hotel Carrol, Lynchburg, Va., last week. A steel axle and skein, interchangeable among all wagons manufactured by members of the association, was adopted by the wagon manufacturers, which will result, it is said, in placing orders for about 100,000 sets at a time and in this way reduce the cost of manufacture. Officers of the Southeastern department of the National Wagon Manufacturers' Association are Messrs. Max Robinson of Martinsburg, W. Va., president, and B. P. Thornhill of Lynchburg, Va., secretary-treasurer. Officers of the Southern Vehicle Association are Messrs. B. M. Blount of Atlanta, Ga., president; W. C. Heath, Monroe, N. C., first vice-president; Clarence Adams, Cleveland, Ohio, second vice-president, and C. P. Henderson, Savannah, Ga., secretary and treasurer.

Louisiana Timber Deal.

Announcement is made that Messrs. R. M. Smith of Parkersburg, W. Va.; J. H. P. Smith and M. A. St. John of Seymour, Ind., have organized the Smith-St. John Lumber Co. for the purpose of developing an extensive tract of timber land near Wisner, in Franklin parish, Louisiana. The property has been purchased, and consists of about 20,000 acres of oak, yellow pine, cypress and other woods. It is stated that the company expects to install a large double-band sawmill, planing mill, dry-kilns, etc., and will construct about 15 miles of railroad through the timber. Active operations will be in charge of R. M. Smith, who is reported as intending to locate at Wisner about the first of August. Messrs. R. M. Smith & Co., 601 Union Trust Building, Parkersburg, W. Va., will be the sales agents for the Smith-St. John Lumber Co.

Company Organized.

Messrs. F. W. Blair, S. P. Loomis, Francis Martin, J. F. Loomis and H. D. Huffaker have incorporated the Ramhurst Lumber Co. at Chattanooga, Tenn., with a capital stock of \$25,000 to operate a sawmill plant near Ramhurst, in Murray county, Georgia. The plant will be located on a branch of the Louisville & Nashville Railroad, and will consist of a planing mill of large capacity, probably a portable mill, and several smaller sawmills to be located at different points in the vicinity of Ramhurst, which will be used to develop the timber on a tract of land which the company has purchased.

Installing Sawmills.

The H. M. Hoskins Lumber Co. of Bristol, Va.-Tenn., advising the MANUFACTURERS' RECORD with reference to its plans, states that it controls several million feet of timber, principally oak, and is installing a band mill and three circular mills for development purposes. The capacity of the band mill will be 25,000 feet per day, and the circular mills from 10,000 to 12,000 feet. The company has an authorized capital stock of \$25,000.

Oak Staves Wanted.

The South African Supply Co., 69 Long street, Cape Town, South Africa, wants to purchase first-class white-oak staves for wine hogsheads and kegs; will consider quotations f. o. b. New York on the following: All-heart white-oak wine hogs-

head staves, 44x1 inch; same staves for kegs, 30x3/4, 24x5/8, 18x5/8 and 16x5/8 inch.

Heading for Slack Barrels.

The Plymouth Lumber Co., Plymouth, N. C., wants information regarding the slack-barrel heading trade, especially with reference to buyers.

Lumber Notes.

The Lumbermen's Association of Texas will hold a meeting at Houston on April 9.

The steamer Phoenix loaded a cargo of crosssties at Brunswick, Ga., a few days ago for Colon.

Delegates from the Memphis, Jackson, Dyersburg and other builders' exchanges in Tennessee met at the office of the Memphis Builders' Exchange last week and organized the Tennessee State Association of Builders' Exchanges.

The British steamer Peerless cleared from Pascagoula, Miss., a few days ago with a cargo of 2,335,000 superficial feet of square timber for Cardiff, Wales. The greater part of the cargo was loaded at the mill docks of the L. N. Dantzer Lumber Co.

Farmers' Warehouses.

Mr. B. D. Cather of Pell City, Ala., editor of the *Farmers' Union Guide*, writes to the MANUFACTURERS' RECORD as follows:

"The Farmers' Cotton Union is an organization in which nearly 50 cotton warehouses in Alabama are the stockholders. These warehouses are owned and operated exclusively by men who grow the cotton, and they have sold nearly all of their cotton this season at 'from one-fourth of a cent to one cent above the market price, putting the difference of one-fourth of a cent to one cent in the pockets of those who produce the raw material. Besides this, these warehouses have, with the exception of a few just completed, paid the stockholders handsome dividends."

"Great manufacturing concerns are now taking up the matter of placing farming implements in these warehouses on consignment and selling them direct from factory to consumer, saving the people enormous profits on middlemen and traveling men."

"This system has come to stay, for the very economy will fasten it among the masses, and it is growing with amazing rapidity."

"If I did not believe that the MANUFACTURERS' RECORD is a friend of the masses of the South as well as the manufacturers and capitalists I would not write this letter."

Engineering Societies' Building.

The program of the dedicatory exercises April 16-17 of the Engineering Societies' Building in New York city includes prayer by the Rev. Dr. Edward Everett Hale, addresses by Messrs. Charles W. Hunt, Charles F. Scott, E. E. Olcott, Andrew Carnegie, President Arthur T. Hadley of Yale University, J. W. Lieb, Jr., Dr. Samuel Sheldon, president A. I. E. E.; Dr. F. R. Hutton, president A. S. M. E.; Dr. John Hays Hammond, president A. I. M. E.; Dr. James Douglas, past president A. I. M. E.; communications from the President of the United States, the President of the Republic of Mexico and the Governor-General of Canada, greetings from foreign and national scientific societies and institutions of learning, presentation of the John Fritz gold medal to Dr. Alexander Graham Bell, and presentation of medals for distinguished services to Mr. R. W. Pope, secretary A. I. E. E.; Dr. F. R. Hutton, past secretary A. S. M. E., and Dr. Rossiter W. Raymond, secretary A. I. M. E.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Athens, Ala.—Road Improvements.—Limestone county has voted affirmatively the issuance of \$135,000 of bonds for road construction; referred to February 21. Address County Commissioners.

Birmingham, Ala.—Steel-rail Mills.—It is understood that the Tennessee Coal, Iron & Railroad Co. has definitely decided upon enlarging its rail mills at Ensley to such an extent as will involve practically the rebuilding of the plant, increasing the capacity to 600,000 tons of rails annually; general offices at Birmingham; New York offices at 100 Broadway; John A. Topping, president.

Cottondale, Ala.—Shingle Mill.—Frank Corley will erect shingle mill.

East Lake, Ala.—Purification Plant.—Boys' Industrial School will install purification plant at a cost of \$5000. Julian Kendrick, City Engineer, Birmingham, Ala., will be in charge. School was reported March 28 as having adopted plans by William Warren, Birmingham, Ala., for erection of additional building to cost \$50,000.

East Lake, Ala.—Sewer and Street Improvements.—City contemplates issuing bonds for sanitary sewer and sidewalk and street paving. Address The Mayor.

Eutaw, Ala.—Water-works, Electric-light Plant and Street Improvements.—City has voted affirmatively the issuance of \$39,500 of water-works, electric-light, street-improvement and school bonds. Address The Mayor.

Leeds, Ala.—Water-works.—Birmingham Water-Works Co., Birmingham, Ala., has begun the construction of proposed dam and lake at De Shazo Gap in Pine Ridge for supplying Birmingham with water. H. F. Juengst, chief engineer, is in charge of entire work.

Selma, Ala.—Woodenware Manufacturing.—Bridgeport Woodenware Manufacturing Co., Bridgeport, Ala., will purchase 21 acres of land at Selma on which to locate plant.

ARKANSAS.

Banks, Ark.—Hardwood Manufacturing.—Southern Hardwood Manufacturing Co. incorporated with \$10,000 capital stock by A. A. Smith, A. V. Smith and A. R. Smith.

Booneville, Ark.—Water-works.—Denver (Col.) capitalists have completed a survey of the city and will petition City Council for franchise to install water-works system. Address The Mayor.

Cargile, Ark.—Shingle Mill.—Loutre Shingle Co. has purchased a shingle mill which it will enlarge and operate. C. H. Murphy is president, Otto Marber vice-president, John P. Holmes secretary and J. H. Green treasurer.

Hamburg, Ark.—Stave Mill.—W. C. Dunlap, St. Louis, Mo., will erect stave factory.

Little Rock, Ark.—Machinery.—Thomas Cox & Sons Machinery Co. has increased capital stock from \$25,000 to \$50,000.

Mena, Ark.—Slate Quarry.—Heath Valley Slate Co. will begin at once the development of its slate property near Mena.

Morrilton, Ark.—Water-works.—Morrilton Water Works Co. will issue \$10,000 worth of five-year bonds.

Nashville, Ark.—Timber Development.—Brown-Henderson Improvement & Timber Co. has purchased 1000 acres of timber lands adjoining former holdings. (Company was reported September 8, 1906, as having purchased 5300 acres of timber land near Nashville for development.)

Newport, Ark.—Hardwood Mill.—Fee-Crayton Hardwood Lumber Co., reported incorporated November 8, 1906, is preparing to enlarge plant and increase trackage. It has recently purchased several large plants, including the Windsor Lumber Co., near Dermott, Ark.; the Sawyer Lumber Co., on the Strawberry river; wagon and carriage goods factory of J. M. Gibson at Jacksonport, Ark.; extensive tracts of timber land near Newport, etc., and will soon begin extensive operations. Edward F. Lee is president.

Ozark, Ark.—Electric-light Plant.—City has granted 15-year electric-light franchise to the Altus Gin Manufacturing & Improvement Co., Altus, Ark.

Selma, Ala.—Cotton Mill.—Estelle Cotton Mills will hold stockholders' meeting to consider issuing bonds to the extent of \$75,000 for improvement purposes.

Talladega, Ala.—Electric-power Plant.—Alabama Power Development Co. incorporated with \$300,000 capital stock to take over the Talladega Electric & Power Co. and generate electricity for lighting and power purposes; J. H. Hanson, president; James D. Mortimer, first vice-president and secretary; R. H. Mitchell, second vice-president, and A. E. Smith, treasurer, all of Alabama City, Ala.

FLORIDA.

Clearwater, Fla.—Irrigation Plant.—J. P. Little and associates expect to install an irrigation plant.*

Florida—Phosphate Mines.—E. F. Coney of Brunswick, Ga., is interested in a tract of land in Florida reported to contain 2,000,000 tons of phosphate, and proposes organizing a company with capital stock of \$250,000 to develop the property. No details have been determined.

Jacksonville, Fla.—Railway Subway, etc.—The proposed improvements of the Atlantic & East Coast Terminal Co. are to be undertaken at once, and bids are being asked until April 20 on the construction of subway with two driveways, sidewalks and space for electric cars and approaches about 470 feet long. Bids will soon be invited for office building, freight sheds, etc. J. W. Richardson is engineer in charge. (See item under Building Notes.)*

Jacksonville, Fla.—Iron Works.—Florida Ornamental Iron Works, incorporated with \$20,000 capital stock, has installed plant for manufacturing ornamental and architectural ironwork, especially iron fences, gates and fire-escapes. D. L. Rathbone is president, J. J. McNamara vice-president, J. S. Zeller secretary-treasurer and F. H. Cooper general manager.

Jacksonville, Fla.—Lumber.—Stephens Lumber Co. incorporated with \$30,000 capital stock by John Stephens, A. H. Stephens and Wm. A. Hallows, Jr.

Long Station (not a postoffice), Fla.—Timber and Naval Stores.—Castle Timber & Naval Stores Co. incorporated with \$50,000 capital stock by W. H. Cook, R. C. Middleton, C. E. Cook, C. C. Alvers, all of Pomona, Fla., and others.

Ocala, Fla.—Phosphate Mines.—Mutual Phosphate Co., W. N. Camp, will probably erect one or two plants where new deposits have been found.

Pensacola, Fla.—Bridge.—County Commissioners will open bids June 4 for erection of steel bridge across Little Bayou.*

Palatka, Fla.—Tank Works.—G. M. Davis & Son will probably rebuild at Palatka their cypress-tank works destroyed by fire recently.

Pensacola, Fla.—Planing Mill.—Joel Frater Lumber Co. incorporated with \$25,000 capital stock to operate planing mill. Joel Frater is president, J. Whitting Hyer vice-president and Henry Hyer treasurer.

Starke, Fla.—Paving Improvements.—City is considering undertaking improvements to include laying concrete sidewalks for principal streets; about four miles. Address The Mayor.

Tampa, Fla.—Brick Plant.—Isidor Kaunltz contemplates erecting brick plant.

GEORGIA.

Atlanta, Ga.—Paving.—Bids addressed to Mayor and General Council will be received at office of W. J. Campbell, City Clerk, until April 15 for repaving Edgewood avenue with creosote blocks, asphalt or bitulithic pavement, approximately 24,000 square yards; R. M. Clayton, City Engineer.*

Atlanta, Ga.—Pipe and Foundry Works.—Atlanta Pipe and Foundry Works, recently reported, will erect building 50x100 feet; corrugated felt roofing; cost \$7000; will produce cast-iron soil pipe and steam and hot-water radiators; 15 tons per day.*

Atlanta, Ga.—Repair Shops, Car Barns, etc.—Morgan & Dillon are preparing plans for improvements to be undertaken by the Georgia Railway & Electric Co. in Fulton county, referred to March 28. It is proposed to build addition to paint shop 50x110 feet and to machine shop 68x98 feet, enlarge carpenter shop and build blacksmith shop, all the new construction to be entirely fireproof. Plans also include erection of new brick and steel car barn 102x22x258 feet. Plant, when completed, will manufacture about 50 cars a year. Thomas K. Glenn is general manager.

Baxley, Ga.—Public Improvements.—City will vote April 12 on issuance of \$7500 of bonds, \$3300 to be used for draining city, \$1200 for extension of water mains and \$3000 for paying school debt. Address The Mayor.

Cochran, Ga.—Water-works.—City has voted affirmatively the issuance of bonds for completing water-works system. Address The Mayor.

Commerce, Ga.—Water-works.—J. H. McCreary will confer with the Mayor relative to constructing water-works.

Douglasville, Ga.—Cotton Mill.—New Century Cotton Mills has organized with H. L. Johnston of Palmetto, Ga., president, and J. T. Duncan of Douglasville, secretary-treasurer. This company proposes to install 7000 spindles, utilizing a mill building already erected; capital stock \$200,000. (Recently referred to.)

Edgewood, Ga.—Electric-light Plant.—Plans are being perfected by J. B. McCrary & Co., consulting engineers, Atlanta, Ga., for the construction of municipal lighting plant, for which a bond issue of \$12,500 has been voted; I. N. Brown, Mayor.

Elberton, Ga.—Water-power Electrical Plant.—Broad River Power Co. incorporated with \$250,000 capital stock, of which \$50,000 has been paid in, to develop water-power on Broad, South Broad and North Broad rivers, transmitting energy by electricity for manufacturing purposes, etc. E. B. Tate, A. S. J. Stovall, I. G. Swift, A. S. Oliver and others are the incorporators. About 15,000 horse-power to be obtained, and probably three or four dams will be built. No engineer has been engaged. Address A. S. J. Stovall.

Gabbettville, Ga.—Telephone System.—Gabbettville Telephone Co. incorporated by S. C. Lovelace, L. T. C. Lovelace, C. W. Emory, D. W. Beatty and others; capital stock \$10,000.

Hampton, Ga.—Cotton Mill.—Reported that A. J. Henderson will build a mill for the manufacture of cotton yarns.

Hampton, Ga.—Cotton Mill.—Hampton Cotton Mills is reported as considering doubling its capital stock of \$30,000 for enlargement purposes.

Hawkinsville, Ga.—Lumber Plant.—W. S. Rogers, Columbus, Ohio, and associates have purchased Hawkinsville Lumber Co.

with mill and timber land in Pulaski county, including several thousand acres of hardwood timber in the Ocmulgee river swamp. It is understood the plant will be enlarged and equipped to manufacture buckets, tubs and other woodenware. A. D. Rogers, Columbus, Ohio, will arrive in Hawkinsville April 1 to take charge of plant.

Hawkinsville, Ga.—Sawmill.—D. A. Bailey contemplates building sawmill, with planer, drykiln, etc., to cut timber which is now being worked for turpentine.

Lagrange, Ga.—Excelsior Plant.—Brownville Excelsior Works will establish an excelsior plant with a capacity of eight tons daily, all grades excelsior. Building will be two stories, 30x160 feet; cost of building and equipment \$16,000; engineer, A. H. Fraser. For the present E. B. Reed is manager, with principal address Gabbettville, Ga. (Recently mentioned under Lanett, Ala.)

Lyons, Ga.—Turpentine Plant.—Southern States Pine Product Co. will rebuild plant recently reported burned; cost \$3000; building 135x50 feet; to be covered with corrugated iron; capacity 150 gallons wood turpentine; superintendent, G. W. Aaron; vice-president and general manager, B. H. Baker, Savannah, Ga.*

Macon, Ga.—Musical Instruments, etc.—American Callaphone Co. incorporated with \$1,000,000 capital stock by J. J. Waxlebaum and T. J. Carling of Macon and A. G. Kaufman, L. J. Lippman and L. J. Waxlebaum of New York city.

Moultrie, Ga.—Sewerage.—City will issue \$30,000 of bonds to extend sewerage system. Address The Mayor.

Newnan, Ga.—Public Improvements.—City will vote May 4 on the issuance of \$25,000 of bonds, \$13,000 to be used for electric-light improvement and extension, \$10,000 for water-works improvement and extension and \$2000 for sewerage extension; A. R. Burdett, Mayor.

Pelham, Ga.—Public Improvements.—City has voted affirmatively the issuance of \$40,000 of bonds for installation of water-works, electric-light and ice plant and sewerage system. Ten-inch well, 750 feet deep, has been sunk, and Water and Light Commission, D. L. Turner, chairman, will soon arrange for completion of entire system. H. S. Jaudon is engineer in charge. (Referred to March 7.)

Ramhurst, Ga.—Lumber Plant.—Ramhurst Lumber Co. incorporated with \$5,000 capital stock by F. W. Blair, S. P. Loomis, Francis Martin, J. F. Loomis and H. D. Huffaker to develop a tract of timber land in Murray county. It is understood that a planing mill, portable mill and several small sawmills will be built and that machinery has been ordered.

Sandersville, Ga.—Bottling and Ice Plants.—Purity Ice Co. will be incorporated to operate ice plant and the Sandersville Bottling Works; W. E. Armistead, president, and F. W. Allen, manager. Bottling plant has capacity of 130 dozen bottles daily and cost \$4000. (Recently referred to.)*

Savannah, Ga.—Land Improvement.—Standard Land Co. incorporated with \$300,000 capital stock by R. M. Hitch of Savannah and Charles T. Tillman, Quitman, Ga.

Shearwood, Ga.—Land Development.—Bullock Land & Development Co. has been formed with a paid-in capital of \$20,000, has purchased 4000 acres of land on Savannah & Statesboro Railway in Bulloch county, and proposes to drain and develop for truck and other farming; president, H. M. Robertson. D. N. Bacot, secretary, Statesboro, Ga., may be addressed.

Statesboro, Ga.—Land Development.—Georgia Realty Co. has been incorporated and proposes to buy and develop land, townsites, etc.; president, J. A. Brannen.

Tallapoosa, Ga.—Cotton Mill.—It is stated that A. L. Jackson is interested in plans for building a cotton mill.

West Point, Ga.—Woodworking Plant.—Southern Mill Supply Co. (lately mentioned under Lanett, Ala.) will erect and equip new building to be used in conjunction with present building for production of picker sticks, skewers, spools, bobbins, etc.; cost \$10,000; building to be two stories, 30x160 feet, part brick; E. B. Reed, manager.

KENTUCKY.

Barbourville, Ky.—Coal Mines.—Moss Rock Coal Co., which has been incorporated, has organized with D. W. Clark, president and general manager; C. F. Clark, secretary.

treasurer, and G. F. Taylor, superintendent. It will mine coal and fire clay; about two tons of coal daily to start with; fire-clay deposits have not yet been estimated; capital stock, \$10,000.

Calhoun, Ky.—Lumber.—Sturm Lumber Co. incorporated with \$15,000 capital stock by Sturm & Sturm, J. L. Shutt and J. H. Miller.

Dry Ridge, Ky.—Creamery.—Dry Ridge Creamery Co. incorporated with \$6500 capital stock by J. S. Steers, A. D. Blaine and C. A. Eckler.

Dirk, Ky.—Coal and Timber Development. It is understood that Northern and Eastern capitalists have purchased 7000 acres of coal and timber lands in Knott county and will organize Carr's Fork Coal Co. to develop the property.

Glasgow, Ky.—Water-works.—Glasgow Water Co. will erect standpipe of 100,000 gallons capacity and build and equip pumping station. Officers are S. T. Young, president; J. F. Taylor, secretary; G. P. Davidson, engineer. (Mentioned recently.)*

Hopkinsville, Ky.—Construction.—Oriental Construction Co. incorporated with \$12,000 capital stock by W. T. Blakely, F. J. Brownell, C. B. Petree and others.

Laurens, Ky.—Barytes Mines.—Dix River Barytes Co. incorporated with \$175,000 capital stock to grind barytes.

Lexington, Ky.—Glass Factory.—John Holland, proprietor of Frankfort Modes Co., Frankfort, Ky., contemplates organization of company capitalized at \$100,000 to establish glass and bottle factory and is considering the purchase of about two and a half acres of ground on which to locate proposed plant.

Lexington, Ky.—Fuel.—Kentucky Fuel Co. incorporated with \$10,000 capital stock by Louis des Cognets, T. L. Young, W. W. Balu and others.

Louisville, Ky.—Distillery.—Stitzel Distilling Co. will enlarge and improve distilling plant, doubling capacity. It will also erect a two story brick warehouse with 22,500 square feet of floor space at a cost of \$90,000.

Louisville, Ky.—Filter.—Louisville Filter Co. incorporated with \$4000 capital stock by James M. Falls, Leavelle McCampbell and Floyd W. Jefferson.

Louisville, Ky.—Oil Company.—Charles C. Stoll Oil Co. incorporated with \$40,000 capital stock by Charles C. Stoll, R. J. Clarkson and Chas. C. Prinz.

Louisville, Ky.—Varnish Company.—Stoll Varnish Company incorporated with \$15,000 capital stock by Chas. C. Stoll, R. J. Clarkson and Charles C. Prinz.

Milton, Ky.—Woodworking Plant.—Leon Frankel, Louisville, Ky., will establish plant for the manufacture of telephone crossarms and pins and tobacco hogsheds.

Milton, Ky.—Cross-arm Factory.—Leon Frankel, Louisville, Ky., will erect two frame buildings 40x60 feet, one 20x30 feet and one 15x45 feet, and install machinery for manufacturing telephone cross-arms, pins, brackets, etc.; buildings and machinery to cost \$10,000. (Lately mentioned.)

Nicholasville, Ky.—Paint Mill.—A. H. Eames, Pittsburg, Ky., and W. J. Welman of Virginia have purchased location on the L. & A. Railroad and will erect large mill for grinding barytes and manufacturing paint; have bought and leased lands in Jessamine county containing ore.

Owensboro, Ky.—Bridge and Terminals.—Owensboro & Rockport Bridge & Terminal Co., recently reported incorporated, plans to build bridges across the Ohio river, constructing 10 miles of track and terminals, investing about \$2,000,000. A. H. Kennedy of Rockport, Ind., is president and W. D. McLaughlin of Evansville, Ind., is engineer in charge.

Pineville, Ky.—Coal Mines.—R. Tate Irvine and Dr. J. W. Kelly of Big Stone Gap, Va., have purchased 1500 acres of coal land in Bell county, Kentucky, for development. Contract has been awarded for tipples, miners' cottages, switches, etc.

Salvisa, Ky.—Cannery.—Salvisa Canning and Preserving Co. incorporated with \$3500 capital stock by C. E. Gaines, W. C. McAfee and J. M. Wilson.

Somerset, Ky.—Publishing.—Somerset Journal Co. incorporated with \$5000 capital stock by O. L. Moore and F. J. and B. B. Campbell.

Tinsley, Ky.—Coal Mines.—S. Shaffer of Pineville, Ky., has organized new company and purchased the lease of the Elk Coal Co. and will continue operations under that title; new company is incorporated; Mr. Shaffer is president.

Williamsburg, Ky.—Coal Mines.—Mount Morgan Coal Co., reported incorporated recently, is a reorganization of company which

has been developing mines for seven years. It is mining 12 carloads daily and has 2000 acres of land for development. W. T. Underwood, vice-president; offices at Lexington, Ky.

LOUISIANA.

Franklin, La.—Molasses Factory.—Planters' Molasses & Distilling Co. organized with \$150,000 capital stock to deal in and distill molasses from which alcohol can be made; R. G. Bush, president; A. M. Underwood, first vice-president; J. W. Foster, second vice-president, and F. E. Robertson, secretary-treasurer.

Homer, La.—Water-works and Sewerage.—Town will have surveys and maps made in order to estimate cost of sinking deep wells for pure water supply and sewerage. Address Town Clerk.

Hopedale, La.—Land Development.—Hopedale Development Co., Ltd., organized with \$140,000 capital stock; N. A. Baker, president; M. C. Baker, vice-president and manager, and T. S. McCullough, secretary-treasurer.

Houma, La.—Brick Plant.—Houma Brick Co. incorporated with \$10,000 capital stock to establish brick plant with daily capacity of 15,000 bricks. Arthur A. Bonvillian is president, A. J. Bonvillian treasurer, and Mosley H. Webb secretary.

Monroe, La.—Sawmill.—Dent Lumber Co. incorporated with \$50,000 capital stock; R. T. Fant, president; Jett Dent, general manager, and W. H. Withers, secretary-treasurer; offices in Memphis, Tenn.

Morgan City, La.—Ship Channel.—Atchafalaya Bay Ship Channel Co., which is now inviting bids for dredging a 14-foot channel to be 1½ miles long, will contract for this work in connection with its plans for providing a ship channel connecting Southwest Louisiana with the Mississippi river by means of locks at Plaquemine. The company has an authorized capital stock of \$250,000, and its officers include F. B. Williams, president, and E. A. Pharr, vice-president and general manager, Morgan City. Warren B. Reed, Hibernia Bank Building, New Orleans, is the consulting engineer in charge.

New Orleans, La.—Bridge.—New Orleans Bridge Co. incorporated with \$25,000 capital stock by William Eugene Joor, Ralph Jacob Schwartz and Edwin Thomas Merrick to manufacture and deal in iron and steel work, etc.

New Orleans, La.—Creosote Plant.—Southern Creosote Co. has begun the erection of proposed creosote plant at Port Chalmette. Two tanks 80 feet in diameter will be constructed.

New Orleans, La.—Vending Company.—New Orleans Vending Co. incorporated with \$60,000 capital stock. J. Hoen is president, J. M. McGraw vice-president, M. J. Gund secretary and E. R. Cogreve treasurer.

New Orleans, La.—Tobacco Factory.—Peoples Tobacco Co. has purchased site at \$15,000 on which to erect additional building, enlarging present plant.

New Orleans, La.—Shipyard.—Reported that W. G. Coyle & Co. have purchased a tract of river-front property at \$30,000 and will establish shipyard.

New Orleans, La.—Mattress Factory.—Crescent Felt Mattress Co. incorporated with \$25,000 capital stock; N. C. Cromwell, president, and Andrew Fitzpatrick, vice-president and treasurer.

New Orleans, La.—Building Material.—John C. Stone Company, Ltd., incorporated with \$30,000 capital stock to operate mills and manufacture building materials; John C. Stone, president; Sam Stone, Sr., vice-president, and Sam Stone, Jr., secretary-treasurer.

Opelousas, La.—Sawmill.—P. A. Rutledge and associates will erect sawmill.

Shreveport, La.—Steel and Iron Structural Plant.—Allan C. Rush, Los Angeles, Cal., is corresponding with the Shreveport Progressive League relative to establishing plant to manufacture building iron from scraps, and proposes to use an oil-burning machine adapted to the working of steel and iron which he has invented.

Shreveport, La.—Brick Works.—O. J. Mc Lane and C. J. Connelly of Carthage, Mo., are contemplating the establishment of brick works. J. B. Atkins will be associated with them.

Wisner, La.—Timber Development.—R. M. Smith of R. M. Smith & Co. (main office, Union Trust Building, Parkersburg, W. Va.), J. H. P. Smith and M. A. St. John, Seymour, Ind., have organized the Smith-St. John Lumber Co. to develop about 20,000 acres of timber land in Franklin parish recently purchased at \$350,000, estimated to cut 200,000,000 feet of native woods. It is proposed to install double-band mill, planing mill, drykilns, etc., and build about 15 miles of railroad.

MARYLAND.

Baltimore, Md.—Paper-box Factory.—J. M. Raffel & Co., paper-box manufacturers, 217 West German street, have awarded contract to McLaughlin Bros., 109 East Lexington street, for the construction of factory building at southwest corner Greene and German streets; five stories; 58x94.6 feet; brick with stone trimmings; mill construction; slag roof; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$40,000.

Baltimore, Md.—Vinegar Plant.—Lewis Elmer & Sons, manufacturers of yeast and vinegar, Central avenue and Bank street, have awarded contract for the construction of steel storage tank at their plant.

Baltimore, Md.—Car-wheel Works.—The plant of the Maryland Car Wheel Works at Curtis Bay, which was recently destroyed by fire, will be immediately rebuilt; A. G. Wellington, general manager, Continental Building, Baltimore and Calvert streets.

Baltimore, Md.—Furniture Factory.—The Headington-Pfeil Furniture Manufacturing Co., Lakewood avenue and Dillon street, has called meeting of stockholders to ratify increase of capital stock to \$100,000.

Baltimore, Md.—Water Plant.—The Southern Investment & Security Co., Lloyd L. Jackson, president, 510 Continental Building, has purchased the water plant and equipment of the Park Heights Water Co. and will later increase the capacity of the plant.

Baltimore, Md.—Carriage Factory.—Carl Speer's Sons, carriage manufacturers, 400-404 South Fremont avenue, have awarded contract to Monmonier & Sorrell, 308 Laurens street, for the construction of carriage factory 70x130 feet at corner Carey and Herkimer streets; cost about \$25,000.

Baltimore, Md.—Chemicals and Appliances. Vapor Cure Appliance & Chemical Manufacturing Co. has been incorporated with a capital stock of \$15,000 to manufacture chemicals and appliances. Incorporators are Geo. T. Reed, 235 North Calvert street; William M. Pugh, 8 South Broadway; Robert L. McCauley, 530 North Carrollton avenue, and others.

Baltimore, Md.—Extract Plant.—Lewis Importing & Manufacturing Co. has been incorporated with a capital stock of \$7500 to import and manufacture flavoring oils and extracts, confectioners' supplies, etc. Incorporators are Harry R. Nicholson, 2630 North Charles street; John C. Paterson and Chas. E. Ecker, 401 Galtier Estate Building, and associates.

Baltimore, Md.—Chemical Plant.—Sharp & Dohme, manufacturing chemists, Pratt and Howard streets, will erect addition to their plant; seven stories; reinforced-concrete construction. Morrow Bros., 216 West Saratoga street; J. H. Miller, 110 Dover street, and R. F. Bennett, 123 South Howard street, are estimating on construction.

Cumberland, Md.—Power-house.—Cumberland & Westernport Electric Railway Co. has begun construction of proposed power-house at Claryville; brick, concrete and steel; 30x90 feet; equipped with 550-horsepower generator and 650-horsepower boilers; J. E. Taylor, Frostburg, Md., superintendent; Daniel Shumm, electrical engineer.

Cumberland, Md.—Shoe Factory.—Maryland Shoe Co. is arranging to rebuild burned plant. John W. Young is president.

Frederick, Md.—Cannery.—Lutz & Schramm, Allegheny, Pa., will establish plant for canning tomatoes, cucumbers, cabbage, cauliflower and onions; cost of buildings and equipment to be \$30,000; details not decided yet.

Hagerstown, Md.—Land Improvement.—Blue Mountain Land Co. incorporated with \$30,000 capital stock to take over the 500 acres of land recently sold in connection with the Blue Mountain House, cut the timber on a portion of the property and divide the remaining acreage into building lots; Henry A. McComas, Hagerstown, president.

Hagerstown, Md.—Woodworking Plant.—Brandt Cabinet Works will erect and equip buildings at a cost of \$15,000 for the manufacture of parlor tables from oak and birch wood; capacity 25,000 annually; main building, three stories and basement, 40x125 feet; engine-room, 27x30; drykiln, 15x60; H. E. Brandt, proprietor.

Hancock, Md.—Water-works and Sewerage. Arthur Giesler, 29 Broadway, New York, and Henry P. Bridges, Baltimore, Md., who recently obtained franchise to construct water-works, have secured site on which to build reservoir, ground being sufficiently elevated to give a pressure of 80 pounds to the square inch. Pumping station will have a daily capacity of about 500,000 gallons of water, which will be increased when demanded. A stock company will be organized, capitalized at between \$40,000 and \$50,000, of which Mr.

Giesler will be president and Mr. Bridges secretary and treasurer. In connection with water-works franchise Messrs. Giesler and Bridges have also secured franchise to construct a system of sanitary sewerage, plan being to run the sewage into the Potomac river.

Have de Grace, Md.—Bridge.—Reported that the engineering department, Baltimore & Ohio Railroad Co., has prepared plans for the proposed double-track steel bridge across the Susquehanna river, replacing the present single-track structure, expending about \$1,000,000. It is also stated that company contemplates straightening approaches to bridge on both sides of the river. D. D. Carothers, Baltimore, Md., is chief engineer. (Referred to November 22.)

Johnsville, Md.—Copper Mines.—Virginia Consolidated Copper Co. has purchased five acres of land and will develop copper mines.

Rising Sun, Md.—Electric-light Plant.—Rising Sun Light, Heat & Power Co. will install machinery for lighting streets with electricity.

Towson, Md.—Abrasive.—Carbonite Wheel & Abrasive Tool Co. incorporated with \$25,000 capital stock to manufacture a patented device for improvement in compositions for polishing and grinding by Chas. H. Snyder, John J. Dotterweich, Charles Schlafer and others.

MISSISSIPPI.

Bay Springs, Miss.—Woodworking Plant.—Bay Springs Spoke & Manufacturing Co. incorporated with \$20,000 capital stock by L. L. Denison, J. O. Denison and R. J. Burnett.

Bay St. Louis, Miss.—Lumber.—Bay Lumber Co. incorporated with \$100,000 capital stock by John Ulysses, W. J. Gex, A. C. Gex and others. (Company was reported January 17 to construct sawmill.)

Courtland, Miss.—Cotton Gin.—Courtland Gin Co. incorporated with \$10,000 capital stock by A. W. Oliver, W. A. Fig and F. A. Lamb.

Gunnison, Miss.—Water-works.—City reported as considering the construction of water-works system. Address The Mayor.

Meridian, Miss.—Roundhouse.—Reported that the New Orleans & Northeastern Railroad has completed plans for construction of roundhouse to cost \$100,000, have 36 stalls for engines and be equipped with a shop building containing modern appliances for repairing engines and machinery; J. F. Coleman, New Orleans, La., chief engineer.

Meridian, Miss.—Carriage Works.—Joseph Nisbit and J. B. Goff have begun the erection of Meridian Carriage Works; building to be equipped with modern machinery, consisting of planers, band saws, rip saws, etc., driven by electric power; Mr. Goff, manager.

Minter City, Miss.—Tile Plant.—Minter City Tile Co. incorporated with \$19,000 capital stock by Ben L. Loe, D. S. Jones, D. T. Michell and others.

Vicksburg, Miss.—Sewerage.—City contemplates issuing \$250,000 of bonds for the construction of a system of sanitary and drainage sewers. P. M. Harding is Acting Mayor.

MISSOURI.

Farmington, Mo.—Construction.—McCarthy Construction Co. incorporated with \$10,000 capital stock by J. W. McCarthy, Timothy McCarthy, Charles McCarthy and others.

Grant City, Mo.—Lumber.—Farmers' Lumber Co. incorporated with \$12,000 capital stock by J. V. Wilhite, S. F. Sanders, W. H. Hagan and others.

Holden, Mo.—Telephone System.—Citizens' Mutual Telephone Co. incorporated with \$2500 capital stock by M. C. Bell, G. G. Battell, Brad Harmon and others.

Kansas City, Mo.—Buggy Plant.—Columbus Buggy Co. has increased capital stock from \$20,000 to \$125,000. Conway F. Holmes is president.

Kansas City, Mo.—Lumber.—Whitney Lumber Co. incorporated with \$150,000 capital stock by W. D. Whitney, H. S. Whitney and C. C. Stark.

Kansas City, Mo.—Brick Plant.—Kaempff Shale Brick Co. incorporated with \$30,000 capital stock by W. A. Hammond, N. K. Hammond and Fred C. Kaempff.

Kansas City, Mo.—Brick Plant.—Kaempff Shale Brick Co. has purchased the Stukenberg Pressed Brick Co.'s plant and will undertake extensive improvements, increasing present daily capacity of 20,000 bricks to 100,000; Frederick C. Kaempff, president, and W. A. Hammond, secretary-treasurer.

St. Louis, Mo.—Transportation.—Grain Growers-Exporters' Transportation Co. incorporated with \$50,000 capital stock to operate a line of steel barges on the Mississippi river between St. Louis and New Orleans, La., for the transportation of bulk grain by

Daniel P. Byrnes, Thomas Warren and J. P. Wagner.

St. Louis, Mo.—Timber Land.—Moark Timber Co. incorporated with \$55,000 capital stock by Wm. H. Avis, S. H. Kielschmidt, Chas. A. Sweet and others.

St. Louis, Mo.—Iron Works.—Banner Iron Works will erect building, 40x23 feet, two stories high; first floor fireproof, balance ordinary construction; steam heat; cost \$5500. Bids were opened March 25. Fred E. A. Darr, 2639 Accomac street, is the contractor.

St. Louis, Mo.—Construction Company.—German-American Realty & Construction Co. incorporated with \$25,000 capital stock by Robert G. Kirsch, August F. Pollman, Carolus Bajohr and A. L. Steinman.

St. Louis, Mo.—Portland-cement Plant.—Union Sand & Material Co. has completed its purchase of the St. Louis Portland Cement Co. and arranged to increase the plant's capacity to 10,000 barrels daily. There will be installed gas engines, producer-gas apparatus for fuel for the kilns, etc., whole equipment to be driven by electricity; office in Liggett Building; A. H. Craney, Jr., president.

St. Louis, Mo.—Candy Factory.—W. F. Boerner Candy Co. incorporated with \$8000 capital stock by W. F. Boerner, B. C. Huger, A. D. Chenoweth and others.

St. Louis, Mo.—Engineering and Construction.—Advance Engineering & Construction Co. incorporated with \$10,000 capital stock by Edward G. Kohlbray, M. Snugg, L. C. Lane and others.

St. Louis, Mo.—Lead Mines.—Quinlan Lead Co. incorporated with \$25,000 capital stock by Patrick Egan, James H. Quinlan, Ben E. W. Ruler and others.

St. Louis, Mo.—Massage Machines.—Arnold Vibrator Co. incorporated with \$100,000 capital stock by A. H. Duncan, S. J. Harbaugh, Crawford Duncan and others.

Versailles, Mo.—Coal Mines.—Ouachita Pottery Co., St. Louis, Mo., contemplates purchasing at \$500,000 about 3000 acres of coal lands near Versailles from the Missouri Cannel Coal Co., Memphis, Tenn., for development purposes.

NORTH CAROLINA.

Bellhaven, N. C.—Furniture Plant.—J. L. Taylor & Co. incorporated with \$25,000 capital stock by J. L. Taylor, S. J. Peele, G. A. Peele, W. M. Green and others.

Bryson City, N. C.—Electric-light Plant.—A company is being organized for the establishment of an electric-light plant. J. L. Gibson can be addressed.*

Charlotte, N. C.—Land Improvement.—Mecklenburg Land & Improvement Co. incorporated with \$50,000 capital stock by J. W. Conway, E. A. Dorr and S. A. Abby.

Albemarle, N. C.—Cotton Mill.—Reported that Efford Manufacturing Co. will add 1500 new spindles.

Durham, N. C.—Street Improvements.—City will vote May 7 on the issuance of \$150,000 for improving streets and sidewalks. (Referred to January 17.) P. C. Graham is Mayor.

Elk Park, N. C.—Sawmill.—A. H. Cline will rebuild 60-inch portable band-saw mill recently burned; machinery not purchased.*

Enfield, N. C.—Knitting Mill.—Enfield Knitting Mills will rebuild plant recently burned; main building to be 40x160 feet, with firewall in center, making two rooms 40x30 feet each; dyer-rooms 20x50 and 20x30 feet, engine-room 20x20 feet, boiler-room 20x20 feet; each department cut off by automatic firedoors; one-story structure throughout, of brick and cement. Company will install 100 knitting machines for hosiery, capacity 400 dozen pairs daily; capital stock \$30,000; Geo. T. Andrews, president; Robt. E. Shervette, vice-president and superintendent. Most of machinery has been bought.

Kings Mountain, N. C.—Bottling Works.—Crystal Carbonating Co. incorporated by F. L. Carpenter, E. W. Barnes, J. D. Bridgers and J. P. Sismore.

Lexington, N. C.—Brick Plant.—Lexington Brick Co. has been organized by H. A. Hege, John Harkey and John Pugh to operate brick plant, machinery for which is reported as purchased; daily capacity 20,000 bricks. Mr. Hege is president.

Lilleville, N. C.—Timber Development.—Carter & Smith Lumber Co. has purchased a tract of forest pine land near Walltown and will work the timber in turpentine before cutting it into lumber.

Louisburg, N. C.—Furniture Factory.—J. W. Hollingsworth contemplates manufacturing mattresses, couches, lounges, cots, etc.

North Carolina—Mining and Milling.—Piedmont Mining & Milling Co. incorporated with \$1,500,000 capital stock by Kendal V. Stockley, Philadelphia, Pa.; Charles P. Tasker,

Claymont, Del., and E. B. Waples, Wilmington, Del.

Raleigh, N. C.—Plumbing.—Farmer-Cole Plumbing Co. incorporated with \$5000 capital stock by Charles D. Farmer, Eugene C. Cole and Walter P. Wrenn.

Raleigh, N. C.—Brick Plant.—Raleigh Press Brick Co. has purchased land and will establish press-brick plant with capacity of 60,000 bricks daily; will erect sheds, etc.; cost of buildings and equipment about \$15,000; president, T. T. Hay; general manager, J. D. Whitaker.

Roxboro, N. C.—Cotton Mill.—Roxboro Cotton Mills is progressing with the erection of the additional 10,000-spindle mill reported last year as to be built at a cost of \$300,000. Complement of looms will also be installed. J. A. Long is president.

Salisbury, N. C.—Cotton Mill.—Reported that Salisbury Cotton Mills has awarded contract to D. K. Cecil for erection of 60x100-foot brick addition.

Sanford, N. C.—Laundry.—P. E. Linnell, Red Springs, N. C., is considering the establishment of laundry.

Wake Forest, N. C.—Cotton Mill.—Royal Cotton Mills has awarded contract to W. H. H. Fries of Greensboro, N. C., for erection of additional building, doubling size of present structure, so as to permit increase of spindles to 15,000; now has 7264 spindles.

Washington, N. C.—Fertilizer Plant.—Pamlico Chemical Co. incorporated with \$125,000 capital stock by W. H. Whitley, J. O. Proctor & Co. and R. R. Fleming of Pictolus, N. C.

Williamston, N. C.—Peanut Factory.—Eli Gurgans and associates propose to establish a peanut factory.

Williamston, N. C.—Buggy Factory.—T. J. Smith is interested in plans for establishing a buggy factory.

Williamston, N. C.—Tobacco-drying Plant.—It is proposed to establish a steam-drying plant to handle tobacco. W. T. Meadows can probably give information.

Wilson, N. C.—Fertilizer Factory.—Contentina Guano Co., reported incorporated recently, has organized with B. L. Woodward, president, and Graham Woodward, secretary. It will erect building 40x200 feet and equip with machinery for manufacturing 80 tons of fertilizer daily at a cost of \$10,000. B. S. Forbes is engineer in charge.

SOUTH CAROLINA.

Anderson, S. C.—Road Improvements.—Anderson county will vote August 13 on the issuance of \$300,000 of bonds for road improvements. Address County Commissioners.

Columbia, S. C.—Lumber Manufacturing.—N. D. Porter of Columbia and R. A. Brodie, Springfield, S. C., owning about 500 acres of timber land on Crane creek, have formed company with \$15,000 capital stock to establish a lumber and manufacturing plant.

Manning, S. C.—Bottling Plant.—Board of Control for Clarendon county will install bottling plant in dispensary building now in course of construction.

Manning, S. C.—Ice and Bottling Plant.—R. D. Clark contemplates building ice plant and bottling works.

Rock Hill, S. C.—Brick Plant.—S. N. Sowell, proprietor Rock Hill Bottling Works, will establish brick plant with capacity of 30,000 bricks. J. L. Sowell will be in charge.

Rock Hill, S. C.—Sewerage System.—City has appointed Solomon-Norcross Company, 1621-23-25 Candler Building, Atlanta, Ga., engineers, to prepare plans and specifications for sewerage system and to make report on same; estimated cost \$50,000. (Mentioned March 21.) Address The Mayor.

Spartanburg, S. C.—Paving.—City contemplates appropriating \$55,000 to be used for additional bitulithic paving. Address The Mayor.

TENNESSEE.

Athens, Tenn.—Woodworking Plant.—New building to be erected by Athens Table Manufacturing Co. will be 50x125 feet; cost of building and equipment \$8000; product, tables, laths, telephone pins, etc.; manager, J. B. Boggess. (Mentioned recently.)

Camden, Tenn.—Road Improvements.—Benton county will vote March 30 on the issuance of \$50,000 of bonds for improving public roads. Address County Commissioners.

Chattanooga, Tenn.—Clay Products.—Southern Clay Products Co. incorporated with \$250,000 capital stock by S. B. Smith, W. M. Elliott, A. T. Moore and others to deal in clay lands, manufacture clay products, etc.

Cleveland, Tenn.—Laundry.—Domestic Steam Laundry incorporated with \$5000 capital stock by E. S. Petty, J. L. Dethers, John Osborne and others.

Columbia, Tenn.—Cottonseed-oil Mill.—Board of Trade contemplates organizing company with \$75,000 capital stock to establish cottonseed-oil mill.

Columbia, Tenn.—Stone Works.—Tennessee Crushed Stone Co. incorporated with \$6500 capital stock by W. R. Cole, W. H. Lindsey, J. J. Gray, Jr., G. V. Hughes and others.

Erin, Tenn.—Electric-light and Ice Plant.—Dover and Clarksville (Tenn.) parties will apply for franchise to install electric-light and ice plant. Address The Mayor.

Greenville, Tenn.—Water-works, Electric Plant and Sewerage.—City has been granted an issue of bonds to amount of \$50,000 and is considering the establishment of a sewerage system and the purchase of water-works and electric-light plant now owned by a stock company. Address The Mayor.

Hartsville, Tenn.—Cannery.—M. L. Wright, Lester High, Odell K. Rickman and Robert O. Dalton have organized company to operate tomato-canning factory, which has been idle. It is proposed to enlarge the plant after the close of the season to permit the canning of peaches, berries, etc.

Johnson City, Tenn.—Brick Plant.—B. G. Keys & Co. will install cement machine and manufacture about 10,000 bricks daily.

Knoxville, Tenn.—Power Plant.—Reported that T. B. Burridge of Denver, Col., and associates contemplate building dam and power plant, supplying power for Knoxville.

Knoxville, Tenn.—Viaduct.—City will petition the Legislature to authorize the issuance of \$50,000 additional bonds to build concrete viaduct on Asylum street. Address The Mayor.

Knoxville, Tenn.—Sewerage.—Board of Public Works has awarded contracts for the 23 sewer districts to James Hannan, Charles T. Helms, J. A. Ahler Plumbing Co. and Arthur J. Warder, total amount of lowest bid being \$15,236.42.

Lenoir City, Tenn.—Car Works.—Lenoir Car Works has increased capital stock from \$100,000 to \$350,000.

Memphis, Tenn.—Lumber.—Clements-Stevens Lumber Co. incorporated with \$10,000 capital stock by J. McClements, H. G. Stevens, C. H. Thompson and others.

Morristown, Tenn.—Tannery.—Reported that Adam Dlugokinski, Cincinnati, Ohio, will establish tannery.

Mt. Pleasant, Tenn.—Phosphate Drier.—Mt. Pleasant Drier Co., recently reported incorporated, will erect and equip building at a cost of \$5000; capacity 100 tons phosphate rock per day. H. D. Ruhm is engineer.

Mt. Pleasant, Tenn.—Phosphate Plant.—People's Phosphate Co. incorporated with \$100,000 capital stock by R. L. Kimbrough, Charles W. Anderson, O. L. Wood and others.

Nashville, Tenn.—Creamery.—Fox River Butter Co. incorporated with \$2500 capital stock by W. B. Marr, J. H. Zarecor, Albert Duling and others.

Nashville, Tenn.—Cold-storage Plant.—A. Booth & Co. have begun the erection of cold-storage plant and warehouses; foundation of stone and walls of two stories of brick; first floor of reinforced concrete and upper floors of concrete; plant's capacity 500,000 pounds; cost \$21,000. Stable 40x40 feet will also be erected; C. K. Colley, architect; M. D. Anderson, local manager.

Nashville, Tenn.—Bakery.—H. G. Hill Grocery & Baking Co. incorporated with \$100,000 capital stock by H. G. Hill, J. E. Webb, W. L. Brigham and others.

Union City, Tenn.—Cannery.—Union City Canning Co. incorporated with \$10,000 capital stock by J. A. Coble, G. B. White, W. G. Reynolds, I. W. Stone and others.

Waynesboro, Tenn.—Road Construction.—Eagle Turnpike Co. organized to construct a road from near Clifton to Waynesboro; R. A. Haggard, president; T. S. Hughes, vice-president; R. M. Sims, secretary, and D. N. Morrow, treasurer.

Winchester, Tenn.—Road Improvements.—Franklin county has voted affirmatively the issuance of \$180,000 of bonds for road improvements; referred to March 21. Address County Clerk.

TEXAS.

Atlanta, Texas—Milling.—Alamo Mills incorporated with \$25,000 capital stock by Russ Daniel, Tom Johnston and D. H. Moores.

Beaumont, Texas—Gas Plant.—Beaumont Gas Light Co. incorporated with \$750,000 capital stock by August A. Hauser, Morris Levy and Harry B. Hurd.

Beaumont, Texas—Grain Mill.—Garrett Grain & Mill Co. incorporated with \$20,000 capital stock by C. A. Garrett, T. W. Garrett and L. T. Votaw.

Beaumont, Texas—Ice Plant.—Ed. and Jerry Stedman have closed contracts for in-

stalling 60-ton ice-making plant in addition they are now building to cold-storage establishment and for engine to furnish power for operating ice and light machinery; storage plant will have 200,000 feet of floor space and facilities for storing 135 carloads of fruits, vegetables, etc.

Beaumont, Texas—Sawmill.—Reliance Timber & Mill Co. incorporated with \$300,000 capital stock by Joe E. Carroll, J. A. Carroll, John L. Keith and others.

Big Spring, Texas—Lumber.—H. C. Wallace Lumber Co. incorporated with \$30,000 capital stock by H. C. Wallace, Charles D. Wallace and Carl L. Wallace.

Bryan, Texas—Cotton Compress.—Planters' Compress Co. and the Bryan Press Co. have been consolidated. Capital stock has been increased from \$30,000 to \$45,000, and the plant will be materially enlarged and improved. Planters' Compress Co. will retain site, reported December 27 as having been purchased as location for compress or any other feasible enterprise.

Childress, Texas—Car Shops, etc.—Fort Worth & Denver City Railway has awarded contracts for part of improvement work it will undertake to the Texas Building Co. These betterments include new shop buildings, 120x248 feet, costing \$56,000; 125-ton transfer table at a cost of \$3500, reservoir for storage of water, costing \$38,000, and installation of \$40,000 worth of new machinery; R. C. Gowdy, resident engineer, Fort Worth, Texas.

Corpus Christi, Texas—Canning Factory.—Charles H. Baxter will establish canning factory at a cost of \$12,900; capacity, 25,000 cans per day.*

Dallas, Texas—Fire Protector.—Twentieth Century Fire Protector Co. incorporated with \$50,000 capital stock by A. S. Lewis and J. Fred Schoellkopf of Dallas and J. A. Posey and W. W. Major of Midlothian, Texas.

Denison, Texas—Oil and Gas Wells.—Denison Oil & Gas Co. has been organized with \$24,000 capital stock to prospect for oil, gas and coal. A tract of 430 acres of land has been leased.

Dodge, Texas—Lumber.—San Jacinto Lumber Co. incorporated with \$55,000 capital stock by E. J. Deupree, T. R. Deupree, W. L. Thomas, Z. K. Ferguson and others.

El Paso, Texas—Stone Company.—El Paso Stone Co. incorporated with \$50,000 capital stock by W. N. Small, James Crawford and W. A. Cannon.

El Paso, Texas—Supply Company.—United Supply Co. incorporated with \$100,000 capital stock by R. H. Thorne, T. J. Rankin, Ben C. Chase and others.

Ennis, Texas—Cotton Mill.—W. D. Farris, J. P. Chambers and others propose organizing company to build cotton mill.

Fort Worth, Texas—Lumber.—Jamestown Lumber Co. incorporated with \$15,000 capital stock by R. M. Bucy, J. F. Lyons, R. E. Lyons and J. S. Manning.

Fort Worth, Texas—Plumbing and Wiring.—McDonald-Blevins Company incorporated with \$10,000 capital stock by William Blevins, R. E. McDonald and W. E. Conn.

Galveston, Texas—Causeway.—Galveston county will vote May 7 on the issuance of bonds to build and own combination causeway and bridge across Galveston Island and Galveston bay. Address County Commissioners. (Recently referred to.)

Galveston, Texas—Sewerage.—Sealed proposals will be received by Board of Commissioners at office of John D. Kelley, City Secretary, until April 11 for construction of vitrified-pipe sewer laterals (aggregating 21,410 feet), together with all appurtenances thereto; C. G. Wells, City Engineer.*

Hillsboro, Texas—Coal Mines.—Bear Grass Coal Co. has increased capital stock from \$20,000 to \$40,000.

Henrietta, Texas—Cottonseed-oil Mill.—Henrietta Cotton Oil Co., recently mentioned, has elected the following officers: President, W. B. Worham; vice-president, A. W. Raht; treasurer, M. Schlosberg; secretary, T. K. Jones; manager, A. W. Raht; capacity 60 tons per day.

Holly, Texas—Cotton Gln.—Farmers Union Co-operative Gln Co. incorporated with \$4000 capital stock by W. L. Driskill, J. B. Miller, D. J. Clancy and others.

Houston, Texas—Lumber Plant.—Texas Tie & Piling Co. incorporated with \$100,000 capital stock to manufacture ties, etc., by J. S. Rice, W. M. Rice and William Malone.

Houston, Texas—Lumber.—Sabine Lumber Co. incorporated with \$300,000 capital stock by Jesse H. Jones, R. M. Farrar and N. E. Meador.

Houston, Texas—Oil Wells.—Glen Oil Co.

incorporated with \$5000 capital stock by W. F. Cleveland, George M. Sowden and J. E. Tomlinson.

Houston, Texas—Gasholder.—Houston Gas Co., T. W. House, president, has contracted with a Philadelphia firm to build steel gasholder 100 feet in diameter and 150 feet high, costing about \$100,000; capacity 1,000,000 cubic feet of gas; structure to be completed by October 1.

La Porte, Texas—Electric-light Plant and Water-works.—City has granted franchise to F. A. Peters and J. B. F. Robinson for construction of electric-light plant to be in operation within six months and establishment of water-works to be in operation within 18 months.

Llano, Texas—Cottonseed-oil Mill.—Llano Cotton Oil Co. incorporated with \$25,000 capital stock by C. Thompson, J. P. Gilchrist and C. I. Boynton.

Lyons, Texas—Oil Milling.—Lyons Oil Milling Co. incorporated with \$25,000 capital stock by O. F. Lyon, J. F. Krenk, H. Opperman, J. F. Lauderdale and others.

Mabank, Texas—Cannery.—Mabank Canning Co. incorporated with \$10,000 capital stock.

Mansfield, Texas—Lumber.—Farmers' Lumber Co. incorporated with \$15,000 capital stock by J. H. Wright, J. J. Watson and F. S. Windle.

Mansfield, Texas—Cottonseed-oil Mill.—Company has been organized to establish cottonseed-oil mill with daily capacity of 28 tons of seed. D. S. Rumph is president, J. J. Watson vice-president, J. H. Harrison secretary-treasurer and H. D. Stevens manager.

Marshall, Texas—Street Improvements.—City Council is considering issuing \$90,000 of bonds, previously voted, for building sidewalks. Address The Mayor. (Referred to December 27.)

McDade, Texas—Brick Plant.—It is proposed to establish a brick plant. S. L. Brannan can give information.

Mexia, Texas—Ice Plant.—J. E. Kelly, Rouseville, Pa., is expecting to build ice plant mentioned recently.

Midlothian, Texas—Cotton Gin.—Farmers' Gin Co. has increased capital stock from \$6000 to \$10,000 and contemplates doubling capacity of gin.

Mt. Pleasant, Texas—Peanut Factory.—Company has been organized by E. S. Lillienstern, R. F. Lindsay, M. Greenspun and J. E. Callihan to establish plant for thrashing, hulling, grinding and marketing peanuts.

Munday, Texas—Mill.—Munday Mill Co. incorporated with \$25,000 capital stock by V. F. Wieser, J. F. Wieser, H. M. Wieser and others.

New Birmingham, Texas—Iron Plant.—Reported that T. W. Arnold and E. P. Yates, Hartford, Conn., have purchased the New Birmingham furnace, pipe works, hotel and 14,000 acres of land and will arrange to equip furnace, enlarge pipe works and make other improvements.

Normanna, Texas—Cotton Gin.—Normanna Gin Co. incorporated with \$5000 capital stock by B. W. Kilpatrick, E. H. Nelson and W. H. Sims, all of Beville, Texas.

Palacios, Texas—Lumber.—Merchants & Planters' Lumber Co. incorporated with \$30,000 capital stock by John B. Peyton, John Moore & Sons, W. N. Singer and G. W. Stanford.

Round Rock, Texas—Telephone System.—Company has been organized to construct telephone system extending five miles from Round Rock. W. N. Halley is president and Henry Palm secretary-treasurer.

San Angelo, Texas—Cotton Compress.—Ben Newland, Gateville, Texas, contemplates establishing compress.

Santa Maria, Texas—Waterworks.—Business League is interested in plans for constructing water-works.

Port Lavaca, Texas—Cotton Gin.—Farmers' Gin Co. has awarded contract for new plant of four 70-saw gins and hydraulic press.

Port Lavaca, Texas—Cotton Gin.—Willett Wilson and W. E. Shell have organized company to build cotton gin equipped with three 80-saw gins.

San Antonio, Texas—Water Lift.—Dehymel Water Lift Co. incorporated with \$40,000 capital stock by J. J. Donaldson, G. M. Magill, C. Schauermeier and others.

Taylor, Texas—Sanitary Company.—Taylor Sanitary Co. incorporated with \$35,000 capital stock by J. F. Hamilton, E. E. Hamilton, R. E. Mulvany and J. A. Smith.

Temple, Texas—Hardware.—Brady & Black Hardware Co. incorporated with \$40,000 capital stock by William F. McGregor, W. A. Brady, D. A. Black and others.

Texarkana, Texas—Lumber.—Southern Lum-

ber Co. incorporated with \$100,000 capital stock by R. L. Trigg, John H. Trigg, W. H. Welch and J. B. Hubbard.

Tivoli, Texas—Cotton Gin.—P. R. Austin will erect cotton gin.

Venus, Texas—Cotton Gin.—C. H. Dunnell will rebuild cotton gin recently reported burned; buildings and equipment to cost about \$5000.

Waco, Texas—Public Improvements.—The vote to be taken by the city April 9 on issuance of bonds will be for \$120,000—school, \$50,000; park, \$50,000; bridges, \$20,000; J. B. Baker, Mayor. (Mentioned recently.)

Wharton, Texas—Sugar Refinery.—Wharton Sugar Refinery Co. incorporated by W. B. Kemper, W. P. Kemper and G. C. Gilford. Buildings will be of modern fireproof construction, with cement floors. R. E. Lee, Leesville, La., will be in charge of construction.

Wichita Falls, Texas—Broom Factory.—Wichita Broom Manufacturing Co. incorporated with \$40,000 capital stock. It will rebuild at once the plant reported March 28 as burned at a loss of \$25,000. A. Newby is president, T. B. Noble vice-president and G. D. Anderson secretary-treasurer.

Wortham, Texas—Electric-light Plant.—A. M. Pittman, Franklin, Texas, will install electric-light equipment in two-story brick building recently purchased.

VIRGINIA.

Abingdon, Va.—Construction.—Abingdon Construction Co. incorporated with \$15,000 capital stock. W. P. Robertson, Plasterco, Va., president; E. C. White, treasurer, and T. H. Mason, secretary, both of Abingdon.

Alumina, Va.—Plumbago and Soapstone.—J. Lee Wing may develop plumbago and soapstone deposits.

Amelia Courthouse, Va.—Mica Mines.—Corson Mica Co. incorporated with \$25,000 capital stock. F. W. Corson, Waymart, Pa., president, and L. F. Salathe, Stroudsburg, Pa., secretary.

Boulevard, Va.—Lumber Plant.—Delmarvia Lumber Co. (lately incorporated with \$25,000 capital) will erect 60x120-foot building and install machinery for sawing. With three mills, the output is expected to be 300,000 to 400,000 feet per month. E. G. Wootten is president.

Bristol, Va.—Tenn.—Lumber Company.—H. M. Hoskins Lumber Co. (mentioned recently) has been incorporated with a capital of \$25,000 and is now installing a band mill and three circular mills. Band-mill capacity is 25,000 feet; circular mills, 10,000 to 12,000 feet each.

Briston, Va.—Coal Mines.—Pioneer Coal Corporation incorporated with \$50,000 capital stock; Geo. L. Carter, president; J. N. Powell, vice-president, and John A. Muse, secretary-treasurer, all of Johnson City, Tenn.

Farmville, Va.—Paving.—City will do \$10,000 worth of granolithic paving; engineer, G. C. Robeson; architect, W. A. Slocomb, Lynchburg, Va.; chairman of street committee, T. R. Martin.

Lynchburg, Va.—Construction.—Ellis Winfree Construction Co. incorporated with \$50,000 capital stock; J. E. Ellis, Albert, Va., president; P. B. Winfree, Lynchburg, Va., secretary-treasurer.

Mineral, Va.—Excelsior Mill.—Reported that C. E. Miller, representing the American Excelsior Co., Laurel, Ind., is arranging for the erection of excelsior plant.

Norfolk, Va.—Gravel Mines.—Presque Isle Gravel Corporation incorporated with \$15,000 capital stock. J. S. Hall is president, W. A. Ross vice-president and R. McIlwaine, Jr., secretary-treasurer.

Norfolk, Va.—Transportation.—Jamestown Exposition Excursion & Steamboat Co. incorporated with \$5000 capital stock. George A. Burniston, Jersey City, N. J., is president and J. H. Dickinson, Brooklyn, N. Y., secretary-treasurer.

Norfolk, Va.—Exposition Concessions.—Exposition General Supply Corporation incorporated with \$25,000 capital stock; H. B. Goodridge, president; C. M. Barnett, secretary and treasurer.

Norfolk, Va.—Laundry.—Crystal Laundry Co. has awarded contract to E. Taterson at \$37,300 for erection of laundry building; five stories; reinforced concrete; pressed-brick walls; terra-cotta trimmings. Entire plant will represent an investment of about \$100,000.

Norfolk, Va.—Exposition Amusements.—Scenic Amusement Co. incorporated with \$15,000 capital stock; Geo. E. Burroughs, New York, president; L. J. Upton, vice-president, and John Upton, secretary-treasurer, both of Norfolk.

Norfolk, Va.—Exposition Amusements.—Atlantic Amusement Co. incorporated with \$50,000 capital stock; J. E. Groves, Beach, Va., president; C. C. Cobb, vice-president, and R. E. Thompson, secretary-treasurer, both of Norfolk.

Norfolk, Va.—Publishing.—People's Press incorporated with R. L. Orr, president; C. G. Kizer, vice-president; C. H. Perry, secretary, and H. S. Scott, treasurer.

Norfolk, Va.—Brick Plant.—Cape Henry Granite Brick Co. incorporated with \$90,000 capital stock; R. C. Marks, president; M. L. T. Davis, vice-president; R. C. Marks, Jr., secretary-treasurer.

Orange, Va.—Electric-light Plant.—City has granted franchise to A. J. Harlow for operating electric-light plant.

Pearlsburg, Va.—Timber Development.—Company has been organized by Martin Williams and M. P. Farrier of Pearlsburg; Biggs-Wilson Lumber Co., Huntington, W. Va., and Joel Beckwith, Parkersburg, W. Va., to develop a tract of timber land in Giles and Bland counties. It is proposed to erect mills and manufacture the timber into staves and lumber.

Petersburg, Va.—Cotton Mill.—Virginia Consolidated Milling Co. expects to install new water-wheels during the summer.

Portsmouth, Va.—Gas Plant.—Portsmouth Gas Co. will enlarge central plant and lay additional mains; Mr. Ferguson, superintendent.

Richmond, Va.—Safes and Locks.—Cline Safe & Lock Co. incorporated with J. H. Cline president and R. A. Burton secretary-treasurer.

Richmond, Va.—Bakery.—Nolde Bros. incorporated with \$10,000 capital stock; J. H. Nolde, president; H. W. Nolde, secretary, and A. H. Nolde, treasurer.

Richmond, Va.—Iron Works.—Mayo Iron Works incorporated with \$50,000 capital stock to succeed the Cameron-Tennant Machine Works; E. C. Mayo, president; E. N. Newman, vice-president, and J. G. Luce, secretary-treasurer.

Roanoke, Va.—Timber Development.—Joel Beckwith, Parkersburg, W. Va., has purchased 25,000 acres of timber land for development.

Rocky Mount, Va.—Locust-pln Factory.—J. L. Cassell contemplates establishing locust-pln factory.

Rocky Mount, Va.—Water-works.—The city needs a water-works system, and is prepared to consider propositions for franchise or may install a municipal plant. As to franchise address W. A. Beicher, Recorder; as to franchise for private company address A. W. Robbins.

Rural Retreat, Va.—Handle Plant.—Rural Retreat Handle Co. incorporated with \$5000 capital stock; W. F. Gammon, president; W. S. Lindsey, vice-president, and S. M. Corbett, Jr., secretary-treasurer; details of plant recently reported.

Rustburg, Va.—Flour Mill.—A. B. Crawley, S. C. Coggin and associates will build mill for manufacturing graham flour.

South Boston, Va.—Ice Plant and Laundry. L. F. Gaines and associates will establish steam laundry and ice plant; capital to be \$25,000.

Waynesboro, Va.—Street Paving.—City has voted affirmatively the issuance of \$10,000 of bonds for sidewalk improvements. (Referred to March 21.) Paving laid will be principally granolithic. Address W. M. McCray, clerk.

Williamsburg, Va.—Drug Company.—Williamsburg Drug Co. incorporated with \$10,000 capital stock with W. A. Bozarth, president, C. C. Hall general manager and James S. Mercer secretary-treasurer.

Williamsburg, Va.—Timber Development.—Shenandoah Lumber Co. contemplates locating plant for the development of 25,000 acres of timber land in Highland county. C. E. Ryan, Parkersburg, W. Va., is president.

Winchester, Va.—Sewers.—N. Wilson Davis, lately noted as engaged by the city to prepare plans and specifications for proposed Sewers, is of Harrisonburg, Va. Plans will be ready by June 1 for 18 miles of small-pipe sewers from 8 to 20 inches.

Wirtz, Va.—Electric-light Plant.—Atkins Milling Co. contemplates installing electric plant to light Rocky Mount, four miles distant. It will need full equipment, including turbine wheels.

WEST VIRGINIA.

Beard, W. Va.—Timber Development.—Kidd & Kirby and the Lilly Lumber Co., Hinton, W. Va., have purchased the Richard Callison timber tract in Pocahontas county for immediate development; property said to contain

11,077 trees besides 1,000,000 feet of smaller timber.

Berkeley Springs, W. Va.—Sand Mill.—Fouse, Bechtel & Harry are erecting sand mill; tunnel now extends about 150 feet in mountain.

Bluefield, W. Va.—Gas Plant.—City has granted franchise to Raymond M. Hudson to construct and operate gas works, lay mains and pipes in streets, etc., and manufacture, generate, distribute and sell gas for fuel, motive power and illumination. Construction work will begin within 90 days.

Bridgeport, W. Va.—Oil and Gas Wells.—Progressive Oil & Gas Co. incorporated with \$10,000 capital stock by John Dunken, A. J. Williams, Gordon B. Sate and others.

Charleston, W. Va.—Brewery.—Kanawha Brewing Co. incorporated with \$150,000 capital stock by W. C. Hardy, W. F. Sharbaugh, Harry Payne and others to take over local brewery.

Elizabeth, W. Va.—Casket Manufacturing.—Mountain State Casket Co. incorporated with \$50,000 capital stock by M. L. Hartley, G. V. Hartley, C. L. Barrett and others.

Fairmont, W. Va.—Coal Mines.—Carr Coal & Coke Co. incorporated with \$300,000 capital stock to develop coal mines in Marion and Monongahela counties by Seymour McIntyre and F. W. McIntyre of Fairmont, M. Eliza Feltz, Hagans, W. Va., and others.

Hinton, W. Va.—Street Improvements.—City has voted affirmatively the issuance of \$25,000 of bonds for street paving. Address The Mayor.

Huntington, W. Va.—Seats, Desks, etc.—West Virginia Seating Co. incorporated with \$25,000 capital stock to manufacture seats, desks, etc., by J. W. Dingess, H. S. Byerer, S. H. Bowman and others.

Jacksonburg, W. Va.—Timber Mills.—Hood Lumber Co., Bridgeport, Ohio, has purchased 6000 acres of timber land at Jacksonburg and expects to install eight or ten mills. Three mills are now in operation. Mill will be erected by contract.

Randolph County, W. Va.—Timber Development.—James W. Selvey and John T. Cavene, Grafton, W. Va., have purchased about 2000 acres of timber land in Randolph, Tucker, Barbour and Preston counties. A stock company will probably be organized to establish sawmill for the development of the property.

Huntington, W. Va.—Land Improvement.—Guyan Land Co. incorporated with \$100,000 capital stock by J. A. Emmons, A. F. Baumgarten, L. A. Pollack, Paul W. Scott and others.

Marshall, W. Va.—Telephone System.—Trap Hill Telephone Co. incorporated with \$5000 capital stock by G. W. Calloway, J. H. Poteet, J. W. Taylor and others.

Monongah, W. Va.—Graphite Mines.—Consolidated Graphite Co. incorporated with \$70,000 capital stock by F. V. Ruckman, J. A. Ready, David Victor and others.

New Martinsville, W. Va.—Glass Plant.—New Martinsville Glass Co. will rebuild plant recently reported burned.

Wheeling, W. Va.—Stamping Plant.—Wheeling Stamping Co. is arranging for additional floor space and will install machinery, increasing capacity of plant.

Wheeling, W. Va.—Land Improvement, etc. Strathford Magnesia Springs Co. incorporated with \$100,000 capital stock by John W. Adams, Harry L. Bond, J. J. Jones and others to acquire and divide land into building lots, operate manufacturing plants, etc.

Williamstown, W. Va.—Manufacturing.—Williamstown Manufacturing Co. incorporated with \$25,000 capital stock by J. A. Griffin, Geo. W. Hunter, W. P. Beeson and others.

INDIAN TERRITORY.

Berwyn, I. T.—Bridge.—Berwyn Bridge Co. incorporated with \$5000 capital stock to construct bridge over the Washita river. G. W. Young is president, F. W. Fisher vice-president, G. W. Henderson treasurer and J. T. Carson secretary.

Idabel, I. T.—Cottonseed-oil Mill.—Idabel Cottonseed Oil Co. organized with \$25,000 capital stock; J. R. White, president; L. S. Deberry, first vice-president; W. F. Taylor, Shreveport, La.; second vice-president; H. C. Morris, secretary-treasurer, and Isaac Guest, Valliant, I. T., manager.

Idabel, I. T.—Sawmill.—Robinson & Reed have purchased and will install sawmill equipment.

OKLAHOMA TERRITORY.

Alone, O. T.—Cannery.—Alone Canning Factory incorporated with \$10,000 capital stock by W. B. Blake, J. T. Bush, E. H. Clark and others.

Capron, O. T.—Telephone System.—North Union Telephone Co. incorporated with \$10,500 capital stock by Joseph Fash, Capron; G. F. Keeler and H. B. Adams, both of Drumm, O. T., and others.

Cordell, O. T.—Water-works and Electric-light Plant.—City has voted affirmatively the issuance of \$20,000 of bonds for water-works and electric-light plant. Address The Mayor.

Dover, O. T.—Bridge.—Chicago, Rock Island & Pacific Railway has awarded contract for steel suspension bridge over the Cimarron river, replacing present pile bridge. J. B. Berry, Chicago, Ill., chief engineer.

Enid, O. T.—Lumber.—Newman Lumber Co. incorporated with \$20,000 capital stock by E. E. Newman, C. C. Hoyt and J. E. Kelm.

Frederick, O. T.—Development Company.—Frederick Mutual Development Co. incorporated with \$27,300 capital stock by John H. Mounts, W. A. Stinson, J. B. Benefield and Mary E. Dickey.

Guymon, O. T.—Grain Elevators.—Interstate Mill & Elevator Co. has been organized with J. R. Steel, Tyrone, O. T., president; C. B. Wright, Liberal, Kan., vice-president, and J. E. Patton, Tyrone, O. T., secretary and manager, to build a line of elevators in the Southwest. Work will soon begin on elevators at Hooker, Guymon and Texhoma, O. T.

Hastings, O. T.—Telephone System.—Whiskey Creek Telephone Co. incorporated with \$5000 capital stock by C. M. Barnes, C. C. Hooper, Ed Owens and others.

Hennessey, O. T.—Cannery.—Hennessey Canning Co. incorporated with \$15,000 capital stock by Ben Thorne, Fred Ehler, W. A. Beeman and others.

Lawton, O. T.—Bottling Works.—Lawton Bottling Works incorporated with \$50,000 capital stock by T. S. Walker, D. Bow and Guy C. Crawford.

Oklahoma City, O. T.—Gas Plant.—Oklahoma Natural Gas Co. has increased capital stock from \$3,000,000 to \$4,000,000 to provide for additional line of pipe it will lay from Oklahoma City to El Reno and Enid, O. T. Ninety-eight miles of 12-inch piping has already been laid, starting point being the company's gas wells between Tulsa and Sapulpa, I. T.

Oklahoma City, O. T.—Gin and Grain Company.—McKnight Gin & Grain Co. incorporated with \$20,000 capital stock by J. R. Phelan, Y. E. Colville and K. R. Rone.

Sayre, O. T.—Water-works.—City has voted affirmatively the issuance of \$25,000 of bonds for construction of water-works. Address The Mayor.

Snyder, O. T.—Water-works, etc.—City has awarded contract to W. W. Cook, Junction City, Kan., at \$28,599, for construction of water-works and electric-light and sewerage systems. (A bond issue of \$30,000 was reported voted on March 7.)

Terlton, O. T.—Oil and Gas Wells.—Polar Oil, Gas & Mining Co. incorporated with \$1,000,000 capital stock by J. M. Hamilton of Terlton, G. V. Patison and H. W. Pentecost, both of Guthrie, O. T., and others.

Wellston, O. T.—Alfalfa Mill.—H. J. Cullen will build an alfalfa mill; machinery not purchased.*

BURNED.

Alexandria, La.—John H. Murphy's Boiler Works, New Orleans, La.; loss \$8000.

Baltimore, Md.—Plant of Maryland Car Wheel Works at Curtis Bay; loss about \$90,000; A. G. Wellington, manager, Continental Building.

Barstow, Texas.—T. L. Patrick's gin and seedhouse; loss \$5000.

Belington, W. Va.—Brandenburg & Co.'s handle factory; loss \$1000.

Bethel, N. C.—G. L. Riddle's roller and saw mill; loss \$6000.

Bolton, Ga.—South River Brick Co.'s plant; loss \$35,000. J. M. Stephens, 56 Park street, Atlanta, Ga., is president.

Clarksburg, Tenn.—Northington Grocery Co.'s bakery and warehouse; buildings owned by F. N. Smith.

Fort Smith, Ark.—Fort Smith Roller Mills; loss about \$12,000.

Gainesville, Fla.—Eddins Manufacturing Co.'s plant; loss \$15,000.

Gatesville, Texas.—Gatesville Public School building; loss \$15,000. Address The Mayor.

Huntington, W. Va.—Chesapeake & Ohio Railway's upholstery department at shops; loss \$20,000; F. I. Cabell, engineer maintenance of way, Richmond, Va.

Ile of Wight, Va.—Sawmill of Benjamin P. Gay of Smithfield, Va.

Lake Charles, La.—Powell Lumber Co.'s plant damaged; loss \$5000.

Memphis, Tenn.—Memphis Furniture Co.'s warehouse; loss \$105,000.

Memphis, Tenn.—Magnolia Stove Works; loss \$75,000; Memphis Hydraulic Stone Co.'s engine and warehouses; loss \$8000.

Monticello, Miss.—Fred Kees' saw and planing mill.

Nacogdoches, Texas.—J. W. Bird's sawmill; loss \$3000.

New Iberia, La.—New Iberia Cotton Oil & Manufacturing Co.'s cotton gin and two warehouses; loss \$15,000.

Oak Grove, La.—A. W. Bivens' cotton gin; loss \$4000.

Oakland, I. T.—Jesse Cornellison's gin; loss \$3000.

Oserfield, Ga.—Rebecca Lumber Co.'s plant; loss about \$50,000.

Pittsboro, N. C.—Pittsboro Oil Mills; loss \$30,000.

Prentiss, Miss.—Prentiss Gin Co.'s plant; loss \$4500.

South Boston, Va.—R. J. Reynolds Tobacco Co.'s steam tobacco factory and storage warehouse; loss on former about \$30,000, and on latter \$5000.

Spartanburg, S. C.—Spartan Mills' 53 dwellings and school buildings; loss \$50,000. W. S. Montgomery is president.

Sturgis, Ky.—West Kentucky Coal Co.'s plant; loss \$85,000.

Union City, Tenn.—Dahnke-Walker Milling Co.'s cornmill; loss \$35,000.

Walsh, Texas.—William Halliday's cotton gin; loss \$5000.

Woodruff, S. C.—Woodruff Cotton Oil Co.'s plant; loss \$15,000. Dr. L. H. Irby, president.

BUILDING NOTES.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Abbeville, La.—Church.—Catholic congregation will erect brick edifice costing between \$50,000 and \$75,000. Committee consists of Rev. Father LaForest, L. O. Broussard, J. E. Nettles and others.

Alexandria, La.—Fire Station.—City Fire Committee has awarded contract to E. D. Elano for erection of central fire station; two stories; brick, 50x80 feet; cost \$5425; J. W. Sylvester, City Engineer.

Alexandria, Va.—Building.—Methodist Episcopal Church, South, will erect George R. Hill Memorial Building at a cost of \$15,000. Plans are being made by W. Leon Clark, architect. Structure will be 48x60 feet and is to be distinctively a young people's building, containing an assembly hall, reading-rooms, parlors, etc.; will have steam heat, gas and electric lights; bids to be opened about May 15.*

Amarillo, Texas.—Office Buildings and Residences.—O. G. Roquemore, architect, has plans for the following buildings: For Kilbaume & Thompson, store and office building, brick, two stories, 30x30 feet, cost \$12,000; Thompson & Webster, store and office building, brick, two stories, 60x90 feet, cost \$24,000; Amarillo National Bank, two-story office building with basement, cost \$15,000; Elks' Home, cost \$25,000; J. A. Wayland, two-story brick store and office building, 30x140 feet, cost \$21,000; Panhandle Lumber Co., improvements, cost \$8500. These buildings will be of modern construction, with steam heat, sewerage, electric and gas fixtures. Residence for W. N. Cunningham, estimated to cost \$5000; for A. V. Curtis, \$10,000; Joe Isaacs, \$7500.

Anniston, Ala.—Building.—Algernon Blair, Montgomery, Ala., has contract at \$10,500 for building weather station referred to January 31; W. F. Clark, local observer.

Arkadelphia, Ark.—School Building.—Bids will be opened by Board of Education April 25 for erection of 16-room grammar and high-school building. Proposals desired for entire work excepting heating and plumbing, for which separate proposals are desired. Plans may be seen at office of L. J. Weber, secretary, Arkadelphia, and office of Herbert Edmund Hewitt, architect, 22 Arcade Building, Peoria, Ill. Blueprints and specifications can be obtained upon application to architect upon receipt of \$5 for general plans and specifications, or \$10 for plumbing and heating plans and specifications, said amounts to be returned if plans and specifications are returned to architect in good condition within one week after April 25. Certified check for \$1000, payable to L. J. Weber, must accompany each bid on general contract and certified check for \$300 must accompany each bid on heating and plumbing. Successful contractors will be required to file surety bond; usual rights

reserved. Bids for general contract must be made out on forms, copies of which will be furnished by architect. Bids must be placed in sealed envelopes and addressed to L. J. Weber. Duncan Flanigan is president.

Atlanta, Ga.—Clubhouse.—Atlanta Athletic Club has adopted plans by Harry Lealle Walker for country clubhouse to be erected at East Lake; cost \$40,000.

Atlanta, Ga.—Theater.—Twin Theater Co. incorporated with \$1500 capital stock and privilege of increasing to \$50,000 by S. P. Robins, F. H. Lansdell, L. J. Daniel and others.

Atlanta, Ga.—Apartment-house.—J. H. Smith will erect apartment-house; three stories, 80x150 feet; brick and stone; 24 apartments; elevators; cost \$50,000. Mr. Smith has prepared plans and will probably supervise the structural work.

Atlanta, Ga.—School Buildings.—Board of Education has accepted plans by Haraldson Bleckley for school building, 154x210 feet, to be erected in the Fourth ward, and those by E. E. Wachendorf for school buildings, 186x200 feet, to be erected in the Third ward. Both structures will be two stories high, contain eight rooms, each capable of seating 50 people, and auditoriums with seating capacity of 250; cost \$30,000.

Baltimore, Md.—Church and Parsonage.—The Second German Evangelical Church, Charles H. Benseler, pastor, 2127 East Monument street, will erect new church building and parsonage at southwest corner Madison street and Milton avenue; church building one story and basement; 44x73 feet; stone exterior; modern conveniences. Henry S. Rippel, 7 Clay street; A. Knell, Jr., 215 Courtland street; Moylan & Welsh, Calvert and Center streets, and D. M. Andrews Company, Vickers Building, 25 German street, are estimating on construction. Edward H. Glidden, architect, Glenn Building, 16 St. Paul street. Bids to be in April 10.

Baltimore, Md.—Bowling Alleys and Skating Rink.—James E. Ingram, Ingram Building, Hanover and Lombard streets, has purchased building on North avenue near Charles street and awarded contract to Henry Smith & Sons Co., 116 South Register street, to prepare plans for converting it into large bowling alleys and skating rink.

Baltimore, Md.—Warehouse.—Jacob Amolsky, 201 North Gay street, has awarded contract to William H. Porter & Son, 505 Forrest street, for the construction of warehouse at corner Gay and Frederick streets; three stories; 32.8x43.6 feet; brick with terra-cotta trimmings; sanitary plumbing. Louis Levi, architect, American Building, Baltimore and South streets.

Baltimore, Md.—Y. M. C. A. Building.—Revised bids are being taken until April 16 from same contractors previously reported in these columns for the construction of new seven-story Y. M. C. A. building at corner Franklin and Cathedral streets. Joseph Evans Sperry, architect, Calvert Building.

Baltimore, Md.—Car Barn.—United Railways & Electric Co. Wm. A. House, acting president, Continental Building, Baltimore and Calvert streets, has awarded contract to David E. Evans, Jr., & Co., Church and Dark lanes, for construction of car barn at corner North avenue and Gay street; one story, 124x356 feet; reinforced concrete construction throughout; steel rolling doors; slag roof; fire doors; metal frames and sashes; galvanized-iron skylights; metal lockers; sprinkler system; electric wiring and fixtures; sanitary plumbing; steam-heating system; Simonson & Pietsch, architects, American Building, Baltimore and South streets.

Baltimore, Md.—Car Barn.—Simonson & Pietsch, architects, American Building, Baltimore and South streets, have distributed plans and specifications for estimates on construction of car barn to be erected at Highlandtown by the United Railways & Electric Co., Continental Building, Baltimore and Calvert streets; one story; covers block bounded by Pratt, Lombard, 7th and 8th streets; reinforced construction with brick exterior; steel rolling doors; fire doors; metal frames and sashes; galvanized-iron skylights; slag roof; sprinkler system; metal lockers; electric wiring and fixtures; sanitary plumbing; steam-heating system; bids to be in April 8. Henry Smith & Sons Company, 116 South Register street; J. H. Miller, 110 Dover street; C. L. Stockhausen, National Marine Bank Building, Gay and Water streets; Charles McCaul Company, American Building; Henry S. Rippel, 7 Clay street; John Cowan, 106 West Madison street, and McLaughlin Bros., 100 East Lexington street, are estimating. Others estimating will be published next week.

Baltimore, Md.—Apartment-house.—O. Lyman Tunis has commissioned Henry J. Tin-

ley, architect, Hoffman Building, 11 East Lexington street, to prepare plans and specifications for the erection of five-story apartment-house to be erected on Clifton avenue, Windsor Hills; structure to be of frame and stucco, 32x40 feet, and contain five house-keeping apartments, each apartment to have an entrance from street; gas and electric fixtures.

Baltimore, Md.—Dwellings.—Charles B. Burdette, Hoffman Building, 11 East Lexington street, has commissioned Jacob F. Gerwig, same address, to prepare plans and specifications for the erection of 12 two-story dwellings to be erected on Norris street near McHenry, each structure to be 12x36 feet; total cost about \$8000.

Baltimore, Md.—Stable.—Holme & Waddington, 1422 Druid Hill avenue, have commissioned Morris & Clifford, architects, Equitable Building, to prepare plans and specifications for the erection of two-story brick stable to be erected at 1411 and 1413 Etting street; structure to be 40x54 feet and cost about \$5000.

Baltimore, Md.—Apartment-house.—Walter B. McCardell, 104 Law Building, 225 Courtland street, has purchased lot on Mt. Royal avenue near Guilford avenue and will erect apartment-house on the site, which is 117x159 feet. John R. Forsythe, architect, 232 St. Paul street, has been commissioned to prepare plans and specifications.

Baltimore, Md.—Dwellings.—S. C. Noot, 6 Law Building, 225 Courtland street, has awarded contract to John T. West, 3006 Westwood avenue, for the construction of 10 two-story brick dwellings on East Preston street, between Kenwood and Patuxent streets, to cost \$15,000.

Baltimore, Md.—Warehouse.—George F. Obrecht, 514 Light street, has awarded contract to J. P. De Jarnette, 1645 East Monument street, for the construction of four-story brick warehouse at 514 Light street to cost about \$6000.

Baltimore, Md.—Postoffice Building.—John S. Bridges, 26 South Charles street, has awarded contract to Chalk & Himes, 36 West Preston street, for the construction of post-office building and apartment-house to be erected at corner North and Druid Hill avenues; two stories, 22x58 feet; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; heating system; J. H. Waters, 23 East Center street; J. H. Miller, 110 Dover street; Thomas P. Johns, 405 McCulloh street, and D. M. Andrews Company, 402 Vickers Building, 225 East German street, are estimating on construction; bids to be in April 2; C. M. Anderson, architect, 324 North Charles street.

Beaumont, Texas.—School Building.—School trustees of South Park District have adopted plans by H. C. Maur for school building; brick and cement blocks; two stories; cost \$18,000. Contract will soon be awarded.

Beaumont, Texas.—School Building.—South Park School Board has accepted plans by H. C. Maur for two-story brick and cement-block school building, with seven classrooms, assembly hall and large corridor, costing \$18,000.

Beeville, Texas.—Building.—A. P. & G. W. Smith have awarded contract to the Bailey Mills Co., Victoria, Texas, for three one-story brick mercantile buildings, costing about \$11,000.

Beeville, Texas.—Opera-house.—Roose & Kinkler have awarded contract to the Bailey Mills Co. for erection of brick opera-house, costing \$27,000.

Birmingham, Ala.—Rectory.—St. Mary's-on-the-Highlands will erect rectory; lower floor of stone; cost \$7000. Address The Pastor.

Booneville, Ark.—School Building.—John T. Blevins, Van Buren, Ark., has contract to erect two-story brick high-school building costing \$30,000.

Bowling Green, Ky.—Building.—F. M. and E. A. Gerard have had plans and specifications prepared for modern three-story brick building 52x100 feet.

Bristol, Va.—Hotel.—Interstate Hotel Co., Dr. Geo. E. Wiley, president, has adopted plans by Barber & Klutz, Knoxville, Tenn., for proposed \$100,000 hotel. Contract will soon be awarded. (Company's plans referred to January 17.)

Brunswick, Md.—Passenger Station.—Baltimore & Ohio Railroad Co. has awarded con-

tract to W. A. Liller, Keyser, W. Va., for erection of frame passenger depot.

Cape Charles, Va.—School Building.—School Improvement League has been organized to erect \$10,000 high-school building.

Centerville, Miss.—School Building.—Drago & Smith, Architects, 405 Cosmopolitan Bank Building, New Orleans, La., have plans for school building; contract not yet let.

Charlotte, N. C.—Apartment-house.—Hook & Rogers, architects for modern flats for James H. Alexander; building to cost about \$25,000; plans now being made; steam heat and all modern improvements.

Charlotte, N. C.—Residence.—Hook & Rogers architects for residence for J. E. Crayton; plans now being made; modern improvements; \$4000 to be the cost.

Charlotte, N. C.—Warehouse.—Hook & Rogers architects for warehouse and offices for W. W. Hagood; J. D. Grandy, contractor; building to be slow-burning; elevator contract let; cost of building, \$15,000.

Cleburne, Texas.—High-school Building.—City has voted affirmatively the issuance of bonds for erection of \$75,000 high-school building. Address The Mayor.

Collins, Ga.—Sanitarium.—Dr. J. W. Daniel will erect sanitarium costing between \$20,000 and \$25,000.

Columbia, Tenn.—Hotel.—J. M. Dedman is completing arrangements for improvements to Bethel Hotel; cost \$10,000. Rees & Watkins have contract to install steam heat in entire building and for new bathrooms, porcelain lavatories, etc., to be provided with hot and cold water; bathrooms and rotunda to have tile flooring; ceiling of dining-room to be covered with steel.

Commerce, Texas.—School Building.—Bids will be received till April 10 at First National Bank, Commerce, Texas, for erection and completion of the East Texas Normal College building according to plans and specifications on file at office of George Lindsey, Greenville, Texas, or at First National Bank, Commerce, Texas; usual rights reserved; J. D. Jernigan, G. W. Apperson.

Corpus Christi, Texas.—Store and Office Building.—Gugenheimer & Cohn have awarded contract to J. F. McKnight, Beaumont, Texas, for erection of three-story store and office building costing \$20,000. (Referred to March 7.)

Covington, Ga.—High-school Building.—Recent bond issue of \$20,000 has been declared legal, and funds will be used for constructing annex to City High School building. Address The Mayor.

Dallas, Texas.—Building.—Addition to the buildings of the Sisters of St. Ursula has been contracted for and work is progressing; cost will be \$50,000; building 60x140 feet; three stories and basement; metal columns and steel girders; exhibition hall and chapel on second floor; steam heat; gas and electric lighting; architect, H. J. Clayton. (Recently mentioned.)

Dallas, Texas.—Residence.—J. T. O'Bannon has given contract to A. Watson, 285 Main street, for residence to cost \$7500; Hubbell & Greene, architects; building two stories and basement; gray vitrified brick; tile roof; hot-water heat; electric lighting.

Danville, Va.—Theater.—Hook & Rogers, Charlotte, N. C., architects for theater; plans now under way and will be ready for bids early in April.

Durham, N. C.—Residence.—Hook & Rogers, Charlotte, N. C., architects for residence for W. W. Flowers; modern equipment throughout; electric lights, heat, etc.; cost \$3000.

El Paso, Texas.—Market.—Mexican Market Co., 426 South El Paso street, will build market, 1040 feet frontage; fireproof construction; steam heat; electric-lighting fixtures; cheap hoists for elevators; boilers, engines, shafting, pulleys; 20-carload cold-storage plant; will probably open bids about June 1; cost to be \$100,000.

Emporia, Va.—High-school Building.—Bids will be received by Greensville County School Board until April 13 at office of Henry Maclin, superintendent, Emporia, for erection of high-school building. Plans and specifications may be seen at office of superintendent and of Albert F. Hunt, architect, 1107 East Main street, Richmond, Va. All bids must be accompanied by certified check for \$250 payable to Henry Maclin, superintendent; usual rights reserved.

Evergreen, La.—School Building.—City has voted a three-mill tax for erection of \$10,000 high-school building. Address The Mayor.

Fort Worth, Texas.—Residence.—C. N. Williamson has awarded contract to G. W. W. Smith for erection of a second cottage; hardwood floors; hard plaster; mantels; hot-air heat; plumbing.

Fort Worth, Texas.—Store Building.—Stew-

art Moore has prepared plans and is receiving bids for erection of store building in North Fort Worth for James Farmer; two stories; brick and stone; iron and sheet steel metal; hard plaster; pressed brick; plumbing, etc.

Fort Worth, Texas.—Theater.—Fort Worth Theater Co. incorporated with \$10,000 capital stock by W. D. Russell, Geo. W. Barnhardt, R. B. Kingsbury and A. S. Ross.

Fort Worth, Texas.—Hotel.—Smith & Schenk have prepared plans for fireproof hotel; 11 stories and basement; foundation 100x120 feet; cafe 80 feet long; 60 rooms and 16 baths on each floor. Long & Evans will have the management.

Gadsden, Ala.—Residence.—Chas. P. Smith is having plans prepared by A. D. Simpson for colonial residence.

Gadsden, Ala.—Opera-house.—Sam I. Rosenbaum and others are incorporating company to build opera-house at a cost of between \$30,000 and \$40,000.

Gadsden, Ala.—Hotel.—Stock company, capitalized at \$75,000, has been organized to erect hotel costing \$60,000. U. B. Kronenberg, Selma, Ala., is interested.

Giddings, Texas.—Building.—A. E. Falke has let contract for erection of ordinary brick building, 70x75 feet, to cost \$500.

Greensboro, N. C.—Residence.—W. H. Stone, Jr., will erect residence.

Greensboro, N. C.—Store and Office Building.—Winningham & Fries have contract to erect building for W. E. Beville; brick; three stories, 32 feet wide; cost \$10,000.

Greensboro, N. C.—Store Building.—W. E. Beville will erect a store building at a cost of \$8000; three stories; brick with plate-glass front, 30x100 feet; electric and gas lighting; architects, Hook & Rogers, Charlotte, N. C.; contractors, Winningham & Fries.

Greenville, S. C.—Residence.—J. P. Rickman, Hendersonville, N. C., will build residence; three stories; 17 rooms; stone foundation; oak and pine construction; hot-water heat; electric-light fixtures; cost \$10,000; architect, A. L. Melton, Asheville, N. C.*

Greenwood, S. C.—School Building.—City will vote March 30 on issuance of \$15,000 of bonds for erection of school building. Address The Mayor.

Gulfport, Miss.—Building.—Eugene Kelly will erect stone and brick building; two stories; pressed brick and plate-glass front; cost of lot and building, \$17,500; architect, R. S. Densmore; contractor, Densmore & Myers.

Guthrie, O. T.—Building.—Children's Home Society has awarded contract to D. S. Mitchell for building in Southeast Guthrie; two stories and basement; cement blocks; cost \$5000.

Hale Springs, Ala.—Hotel.—Hale Springs Hotel Co. will erect hotel of about 35 rooms; frame; two stories; cost about \$10,000; may enlarge later; expect to open June 15; architect, Walter Chamberlin, Chalfont Building, Birmingham, Ala.; superintendent of construction, E. P. Hale. (Recently reported under Birmingham.)

Hartsville, Tenn.—Hotel.—A. C. Welch, J. W. Rankin and associates are reported to erect hotel.

Hattiesburg, Miss.—Church.—Bay Street Presbyterian Church has awarded contract for erection of \$25,000 edifice to J. A. Frazier. Rev. R. L. Campbell is pastor. Building will be of concrete-stone, have hot-air heating and electric-lighting fixtures. R. H. Hunt, Chattanooga, Tenn., is architect.

Henderson, N. C.—Store Building.—I. J. Young has awarded contract for erection of store building to be leased by Government for postoffice; two stories, 30x70 feet; brick.

Hickory, N. C.—Hotel.—Hickory Inn, lately reported burned at a loss of \$30,000, will probably be rebuilt within the year. Address J. E. Montague.

Hillsboro, Texas.—High-school Building.—School Board has adopted plans by Moad & Skielvig, Dallas, Texas, for erection of two-story brick high-school building costing \$18,000.

Houston, Texas.—Building.—General contract for erection of the Allen Paul Building was awarded to Buchanan & Glider, Fort Worth, Texas, and for plumbing and steam-fitting to Kethley & Co., Houston, Texas; structure to be of stone, brick and steel; fireproof; 51x62 feet; seven stories and basement; cost \$35,000. Plans were prepared by Sanguinetti & Staats, Fort Worth, Texas.

Jackson, Miss.—Residence.—T. B. Gaddis is having plans prepared by C. J. Harper for \$12,000 residence.

Jackson, Miss.—Hotel.—Local capitalists are considering the rebuilding of Norvelle Hotel, destroyed by fire about two years ago. Site is owned by Jones & Carnes.

Jackson, Miss.—Hotel.—E. A. Battle will erect hotel 60x160 feet at a cost of \$25,000.

Jackson, Miss.—Warehouse.—Southern Wood Fiber Plaster Co. will build warehouse to cost \$5000.

Jacksonville, Fla.—Bank Building.—Atlantic National Bank will erect building on site 52x105 feet recently purchased; Edward W. Lane, president.

Jacksonville, Fla.—Railway Sheds and Office Building.—Atlantic & East Coast Terminal Co. will soon ask for bids on erection of two-story office building and one-story freight sheds; to consist of two buildings about 51x775 feet each. J. W. Richardson is engineer in charge.

Jacksonville, Fla.—Residence.—Talley & Fasser, architects, West Building, have prepared plans for residence to be built by Neal Finkelstein. (Mentioned recently.) Building will be of brick; two stories and a half; steam heat; gas and electric fixtures; cost, \$12,000; contractor, J. M. Croomer.*

Jacksonville, Fla.—Hotel.—Edward M. L'Engle will erect four-story hotel, equipped with telephone service; foundation has been laid.

Jacksonville, Fla.—Store Building.—F. E. Woods will erect four-story store building 26x109 feet.

Jefferson, Texas.—Library.—Bids will be received at office of Allen Urquhart, chairman building committee, until April 15 for erection and completion of two-story buff brick public library building. Plans and specifications on file at Jefferson and at the office of the architects, Lockhead & Horne, Corsicana, Texas. Certified check for \$250 must accompany each bid; usual rights reserved.

Kansas City, Mo.—Building.—County Court contemplates expending about \$150,000 in erecting additional building and making other improvements to the county home. F. A. Rea will prepare plans.

Kaufman, Texas.—Church.—Kaufman Baptist Church, D. B. Allen, pastor, proposes to build church at a cost of from \$10,000 to \$12,000.

Kenedy, Texas.—School Building.—City will vote April 30 on the issuance of \$12,000 of bonds for erection of modern brick school building. Address The Mayor.

Knoxville, Tenn.—Apartment-houses.—Victor Letori will erect three apartment-houses, five stories high, of buff brick trimmed with stone. Excavating for first building is said to have begun.

Knoxville, Tenn.—Buildings.—University of Tennessee is considering plans for proposed improvements, for which \$100,000 has been appropriated, \$50,000 being available this year and the remainder next year. It is proposed to expend \$40,000 for erection of new agricultural building, to be E shape, three stories high in front and four stories in rear and contain auditorium with glass roof for agricultural classes for practical demonstrations; \$10,000 for general repairs; \$12,000 for purchase of additional equipment for schools of experimental engineering, electrical engineering and physics; \$10,000 for continuing, on an enlarged scale, co-operative experiments in agriculture and horticulture in Middle Tennessee, etc. It is also planned to convert Morrill Hall into dormitory. Mr. Ayres is president.

Lake Charles, La.—Store Building.—Leon Viterbo of Lake Charles and I. J. Viterbo, Beaumont, Texas, are having plans prepared for two-story store and office building 50x100 feet; ground floor will be divided into two business rooms, 26x100 feet and 24x100 feet, one of which has been leased by the Grand Leader.

Laurens, S. C.—School Building.—Board of Trustees, J. W. Ferguson, chairman, has ordered an election to be held April 18 to vote on the issuance of \$30,000 of bonds for erecting graded school building.

Lawrenceburg, Tenn.—Bank and Office Building.—Lawrence Bank & Trust Co. has had plans prepared for erection of two-story bank and office building 22x90 feet.

Little Rock, Ark.—Apartment-house.—C. W. Clark has contract to build Stiff's flat building; cost \$65,000.

Louisville, Ky.—Dwelling.—W. S. Speed will erect two and a half story brick dwelling costing \$18,000.

Louisville, Ky.—Dwellings.—Geo. C. Spurrier will erect three two-and-a-half-story frame dwellings costing about \$8100.

Louisville, Ky.—Dwellings.—Home Building Co. will erect five two-story frame dwellings costing \$15,000.

Lynchburg, Va.—Store Building.—John P. Pettyjohn will erect store building; two stories; 24x100 feet; buff brick; cost \$6000.

Marion, Va.—Residence.—Barber & Klutts, Knoxville, Va., are architects for dwelling

to be built by J. C. Campbell, owner; cost about \$18,000; brick veneer; hot-water heating. (Mentioned recently.)

Marshall, Texas.—City Hall.—Contract has been awarded for City Hall, for which \$45,000 of bonds have been voted. Lange, Wichell & Lancaster prepared plans. (Referred to December 27.) Address The Mayor.

Mart, Texas.—Warehouse.—Farmers' District Union has organized the Farmers' Union Cotton Warehouse Co. with \$15,000 capital stock and has contracted with Stanley H. Watson, representing the Farmers and Bankers' Warehouse Building Association, Houston, Texas, for erection of \$7500 building with capacity of 5000 bales.

Maryville, Mo.—School Building.—Board of regents, State Normal School, will open bids May 15 for erection of State Normal School building; referred to March 21. Mr. Deewester is president.

McGregor, Texas.—Bank Building.—First National Bank will erect a two-story bank building; 40x30 feet; brick and stone construction; electric lighting; cost of building and fixtures \$12,000; architects, Lang & Wittichell, Dallas, Texas; contractors, Harrison & Wilson, Waco, Texas.

Mebane, N. C.—Store Building.—Hook & Rogers, Charlotte, N. C., architects for store building for Mebane Store Co.; modern equipment.

Memphis, Mo.—Courthouse.—Scotland county has voted affirmatively the issuance of \$50,000 of bonds for erection of courthouse. Address County Commissioners.

Memphis, Tenn.—Docks.—Reported that the Illinois Central Railroad will soon begin the erection of proposed docks, etc., expending approximately \$100,000 or \$150,000. Company was reported March 21 as having awarded contract for 700,000 yards of excavation work. A. S. Baldwin, Chicago, Ill., chief engineer.

Memphis, Tenn.—Warehouse.—Memphis Furniture Co. will rebuild warehouse recently burned at a loss of \$105,000.

Memphis, Tenn.—Bank Building.—Binghamton Bank & Trust Co., O. G. Gardner, president, Jackson, Tenn., will erect bank building.

Memphis, Tenn.—Hospital.—Tri-State Hospital, incorporated by Dr. J. T. Jelks, W. R. Barksdale, S. B. Anderson and others, will erect \$50,000 hospital.

Mentone, Ala.—Residence.—Walter Lide, Birmingham, Ala., is having plans prepared for erection of summer residence.

Milton, Fla.—Bank Building.—Bids are being received by the First National Bank until April 10 at office of Ausfield & Blount, architects, Pensacola, Fla., for erection and completion of bank building. Bids must be accompanied by certified check of \$150. For plans and specifications and other information apply to architects; usual rights reserved.

Mineral Wells, Texas.—Hotel and Sanatorium.—J. W. Scharbauer, Fort Worth, Texas, has purchased site 100x150 feet and will erect a modern hotel and sanatorium at a cost of \$100,000.

Monroe, La.—School Buildings.—State Reform School Building, recently mentioned, will be equipped with laundry and general industrial-school equipment; hot-water heating; electric and combination lighting; architects, Drago & Smith, 405 Cosmopolitan Bank Building, New Orleans, La.

Montgomery, W. Va.—Hotel.—J. C. Montgomery contemplates erecting hotel.

Nashville, Tenn.—Clubhouse.—Building for Watauga Club, after plans by Carpenter, Blair & Gould, 475 Fifth avenue, New York, N. Y., is estimated to cost \$150,000; will have steam heat, electric elevators and electric lighting; contract not yet let. (Referred to March 28.)

Navasota, Texas.—Store Building.—T. L. McNair is erecting a store building 50x150 feet; one story; cost \$3500; contractor, E. Watkins.

New Iberia, La.—Church.—Methodist Episcopal Church South (recently mentioned) will be rebuilt in mission style; estimated cost \$7500; size 56x54 feet; ordinary construction; tile roof; electric-plated lighting fixtures; chairman of committee, H. N. Pharr, Olevia, La.; architect, E. W. Phillips; bids to be opened April 3.

New Orleans, La.—Warehouse, etc.—Government will expend \$400,000 in erection of about 12 fireproof buildings at Southwest Pass, near Berwood, in connection with work of dredging and maintaining a channel. Structures will include steel warehouse 30x80 feet, wharves, machine shops, coaling plant, blacksmith shop and dwellings; Col. E. H. Ruffner, Corps of Engineers, U. S. Army.

New Orleans, La.—Business Building.—Equitable Real Estate Co., 220 Carondelet

street, will erect building for A. M. Lockett; two and one-half stories, 7x154 feet; pressed brick; plate glass; terra-cotta; cost \$20,000.

Norfolk, Va.—Apartment-house.—R. Margolis will erect two-story apartment-house costing \$6800.

Norfolk, Va.—Buildings.—Sterling Place Co. will erect two buildings, one to be a two-story frame and shingle structure, costing \$5000, and the other a two-story frame and stucco building, costing \$6100.

Norfolk, Va.—Hotel.—Hotel DeVillie Co. incorporated with \$10,000 capital stock. W. G. Miller, Washington, D. C., president, and L. B. Morris, Pine Beach, Va., vice-president.

Oklahoma City, O. T.—Business Building.—S. R. Raymond has awarded contract to F. R. Gose, Shawnee, O. T., for erection of business building after plans by J. W. Hawk; five stories and basement, 50x140 feet; brick, tile, steel and concrete; cost \$48,000; structure to be completed about September 1.

Oklahoma City, O. T.—Building.—E. E. Houghton will erect building; two stories and basement; native brick and white stone; first floor to provide two storerooms 25x120 feet; cost \$18,000.

Oklahoma City, O. T.—Church.—Maywood Presbyterian congregation will erect edifice costing about \$10,000; Rev. E. O. Whitwell, pastor.

Orange, Texas.—Building.—Sabine Tram & Lumber Co. is reported as having awarded contract to J. E. McKnight, Hallettsville, Texas, for building costing \$15,000.

Orange, Texas.—Memorial Building.—Plans by James Oliver Hogg, architect, New York Life Building, Kansas City, Mo., for memorial building to be erected for Mrs. H. J. Litcher at a cost of \$150,000 call for reinforced concrete construction, building to be 72x92 feet; steam heat and electric lighting; bids to be opened April 30 at architect's office. (Mentioned March 28.)

Pass Christian, Miss.—Hotel.—L. T. Dickerson, Chicago, Ill. has purchased and will remodel the Mexican Gulf Hotel, expending about \$50,000. Improvements will include the installation of sanitary plumbing and heating, swimming pool, etc.

Palestine, Texas.—Bank Building.—Peoples' Bank & Trust Co. will erect bank building; Frank C. Bailey, president.

Pelham, Ga.—Library.—Architects T. W. Smith & Co., Columbus, Ga., have been commissioned by the Library Board to make plans and specifications for the erection of Carnegie library; cost \$12,000; 50x60 feet; pressed brick; stone trimmings; tile roof; chairman, J. L. Hand.

Petersburg, Va.—School Building.—City contemplates appropriating \$25,000 for erection of school building. Address The Mayor.

Pine Beach, Va.—Pier and Ice Storage.—Jamestown Ice Corporation, Newport News, Va., recently reported incorporated with J. R. Buxton, president, has awarded contract to Alsop & Pierce, architects and contractors, for construction of freight and passenger pier 1300 feet long, 100 feet square at end and 19 feet deep at low tide; company also proposes to build two storage-houses, one about 900 feet from beach at a depth of 16 feet, capable of holding 2000 tons of ice, and the other on the Exposition grounds, with capacity of 300 tons.

Potosi, Mo.—Courthouse.—Bids for the erection of Washington county courthouse will be opened after May 6; cost \$30,000; county secretary, John O. Lang. (Mentioned recently.)

Quinnimont, W. Va.—Hotel.—Quinnimont Hotel Co. has awarded contract to the Charleston Lumber Co., Charleston, W. Va., for erection of hotel; three stories; first story of stone; 35 sleeping-rooms; C. A. Mid-elburg, secretary-treasurer, Sewell, W. Va.

Raleigh, N. C.—Hotel.—Richard Giersch has awarded contract for hotel.

Raleigh, N. C.—Public Buildings.—City will vote May 6 on the issuance of \$100,000 of bonds for auditorium, city buildings, station-houses, etc. Address The Mayor.

Reldaville, N. C.—Freight Depot.—Corporation Commission has approved plans submitted by the Southern Railway for new freight depot; 32x275 feet; brick; cost \$15,000; D. W. Lum, Washington, D. C., chief engineer.

Richmond, Va.—Apartment-house.—Abner S. Pope will erect apartment-house at a cost of \$100,000.

Richmond, Va.—Theater.—Reported that the International Theatrical Syndicate, O. F. Rhodes, general manager Southern circuit, will erect \$250,000 theater in Richmond and several other Southern cities. Rearem & Bldmore, Chicago, Ill., reported as architects and contractors.

Richmond, Va.—Building.—C. K. Howell is

preparing plans for 15 or 16-story building. It is understood that a company has been formed for the erection of structure.

Richmond, Va.—Store and Office Building.—M. L. Hofheimer is having plans prepared for erection of nine-story building.

Richmond, Va.—Apartment-house.—L. Lowenburgh, Norfolk, Va., is reported as interested in the erection of apartment-house.

Roanoke, Va.—Store Building.—J. S. Perry has let contract to J. F. Barbour for erection of building recently mentioned; cost \$5500; architect, H. H. Huggins.

Salisbury, N. C.—Dwelling.—Hook & Rogers, Charlotte, N. C., architects for residence for Edwin Shaver to cost about \$7000; modern in every way; contract let.

Salisbury, N. C.—Passenger Station.—Central Carolina Construction Co., Greensboro, N. C., has contract to build proposed passenger station for the Southern Railway Co.; Frank P. Milburn, Columbia, S. C., supervising architect; structure to be of brick and granite, and cost, including approaches, track changes, etc., will approximate \$100,000.

Sewells Point, Va.—Pier.—Company headed by Mayor Buxton of Newport News, Va., has applied to the Harbor Board for permit to build a pier 1300 feet long and 12 feet wide.

Sherman, Texas.—School Building.—City will vote April 23 on the issuance of \$27,000 of bonds to rebuild high-school building recently burned. Address The Mayor.

Shubuta, Miss.—High-school Building.—Plans and specifications are being prepared for frame building costing \$6500 for the Shubuta High School; W. D. Heidelberg, president board of trustees.

Spartanburg, S. C.—Dwellings, etc.—Spartan Mills will arrange to rebuild structures recently burned at a loss of \$50,000. W. S. Montgomery is president.

Starke, Fla.—Residence.—Paul E. Canova will build residence to cost \$4500, and the contractor is A. J. Wilson.

Starke, Fla.—School.—The city will probably give consideration soon to arrangements for building proposed school, for which bonds have been authorized; building to cost from \$10,000 to \$15,000. Address The Mayor.

St. Matthews, S. C.—School Building.—City has voted affirmatively the issuance of \$10,000 of bonds for erection of school building. Address The Mayor.

St. Louis, Mo.—Bank Building.—German-American Bank, 4th street and Franklin avenue, is having plans prepared for alteration of present building and erection of additional fireproof building; latter to be 40x23 feet, two stories; cost of improvements about \$10,000; architect, J. L. Wees, 410 Commercial Building.

St. Louis, Mo.—Building.—Condle-Neale Glass Co. is having plans made for a proposed building to cost \$100,000. As proposed, building will be 80x150 feet, six stories and basement, and will back on railroad tracks. Mauran, Russell & Garden are the architects.

St. Louis, Mo.—Building.—Dougherty & Bush Real Estate Co. will erect a series of buildings to cost \$40,000; four buildings to be 24x50 feet, two 19x46 feet, two 34 feet 8 inches by 48 feet. Hot-air furnaces will be used.

St. Louis, Mo.—Hotel.—Reported that the Hall Real Estate Co. is about to close negotiations for sale of site, 105x109 feet, to a syndicate which proposes to erect hotel; 12 stories; steel-frame construction; fireproof; cost \$1,000,000. Structure will be leased by James H. McTague.

Tampa, Fla.—Bank Building.—Peninsula Investment Co. (City Savings Bank) will erect new building at a cost of \$35,000; 60x100 feet; three stories; brick with marble trimmings; electric lighting; architects, Perry Bros.; contractor, J. H. Detwiler. (Recently mentioned.)

Tampa, Fla.—Building.—Levick & Mabley are contractors for building recently mentioned to be erected for Mrs. H. B. Lykes; brick; two stories, 65x66 feet; gas and electric lighting; cost \$13,000; architects, Miller & Kenard.

Tampa, Fla.—Building.—Tampa Drug Co. has awarded contract to J. H. Detwiler for erection of three-story brick building costing \$27,000 after plans by Shaw & Jay. Building will have two electric elevators and electric lighting.

Toccoa, Ga.—Jail Building.—Bids will be received by B. P. Brown, Jr., ordinary, until April 15 for building and equipping brick jail for Stephens county, contractor to furnish all labor and materials, toolproof cells, etc., required by specifications to complete building; 45x35 feet; two stories with basement; to be completed by October 1; plans and specifications on file in office of ordinary.

Each bidder will be required to file with bid a certified check for \$500, payable to B. P. Brown, Jr., ordinary of Stephens county; usual rights reserved.

Tusculum, Ala.—Warehouse.—Farmers' Union of Colbert county will erect concrete warehouse of fireproof construction.

Wakefield, Va.—High-school Building.—City has voted the issuance of \$10,000 of bonds for erection of high-school building. Address The Mayor.

Warrenton, N. C.—Store Building.—W. A. Miles & Co. have awarded contract to Phipps & Cooper for erection of building; three stories; pressed brick; plate-glass front.

Washington, D. C.—Dwellings.—Charles J. Walker, 216 Corcoran Building, 15th and F streets N. W., has awarded contract to Jas. F. Blackney, Baltimore street, Takoma, D. C., for the construction of 13 two-story brick dwellings at 1500-1524 I street N. W., to cost about \$28,000; Julius Wenig, architect, 1223 New York avenue N. W.

Washington, D. C.—Dwellings.—Mrs. B. M. Lohr has awarded contract to A. B. Lohr, 116 D street N. E., for the construction of two two-story brick dwellings at 534-536 Howard street to cost \$6000.

Washington, D. C.—Store Buildings.—Wm. P. Kellogg, Shoreham Hotel, 15th and H streets N. W., has awarded contract to Louis H. Emmert, 1119 15th street N. W., for the construction of three one-story brick store buildings with electric wiring and fixtures at 2418-2422 18th street N. W. to cost \$6000.

Washington, D. C.—Dwelling.—George S. Rees, 1003 G street N. W., has awarded contract to John Simpson & Son, Forest Glen, Md., for the construction of 2½-story frame dwelling with hot-water heating system and electric wiring and fixtures on Rittenhouse street between 32d and 33d streets N. W. to cost \$9000; Alexander H. Sonneman, architect, 1413 G street N. W.

Washington, D. C.—Dwellings.—Mary I. May, 17 Quarry road N. W., has awarded contract to W. B. Holtzclaw, 1705 Pennsylvania avenue N. W., for the construction of five dwellings at 3356-3364 18th street N. W. and five dwellings at 1800, 1808-1814 Newton street N. W.; three stories; brick and pebble-dash exteriors; sanitary plumbing; hot-water heating systems; cost \$67,000.

Washington, D. C.—Dwellings.—Eurethea M. Elenhour has awarded contract to J. McC. Brown, 311 Jefferson street N. W., for the construction of two two-story brick dwellings with hot-air heating systems at 5732-5734 13th street N. W. to cost \$6000; A. H. Beers, architect, 1333 G street N. W.

Washington, D. C.—Store Buildings.—Louis Steerman, 1325 Columbia road N. W., has awarded contract to John H. Grant, 5449 Brightwood avenue N. W., for the construction of three one-story brick stores with electric wiring and fixtures at 1782-1786 Florida avenue N. W. to cost \$7000; N. R. Grimm, architect, 627 F street N. W.

Washington, D. C.—Dwellings.—Bates and John L. Warren, Columbian Building, 416 5th street N. W., have awarded contract to Thomas H. Melton, 19 T street N. W., for the construction of four dwellings at 4314-4322 9th street N. W., four dwellings at 901-907 Varnum street, six dwellings at 900-910 Webster street and four dwellings at 4315-4321 Brightwood avenue; two and one-half stories; brick and frame construction; hot-air heating systems; sanitary plumbing; cost \$72,000; Hunter & Bell, architects, 1010 F street N. W.

Washington, D. C.—Dwellings.—Kennedy & Davis Company, builders, 1413 G street N. W., will erect between 75 and 80 three-story brick dwellings in block bounded by 14th, 15th, A and B streets N. E.

Washington, D. C.—Engine and Truck-house.—Henry B. F. Macfarland, Henry L. West and John Biddle, District Commissioners, will erect engine and truckhouse on Lanier place, Washington Heights, to cost about \$25,000.

Washington, D. C.—Dwelling.—T. C. Dulin, 1215 F street N. W., has awarded contract to Wm. C. Morrison, 1415 Rhode Island avenue N. W., for the construction of dwelling on Park road near 18th street N. W.; two stories with basement and attic; brick with stone trimmings; interior marble; slate roof; electric wiring and fixtures; sanitary plumbing; hot-water heating system; Harding & Upman, architects, 729 15th street N. W.

Washington, D. C.—Office Building.—Swartzell, Rheem & Hensley Company, 916 F street, has awarded contract to Norcross Bros. Company, Colorado Building, 14th and G streets, for the construction of office building at 727 15th street N. W.; one story and basement, 37x120 feet; marble exterior; fireproof construction; interior marble and bronze work; fireproof vaults; electric wiring and fixtures; sanitary plumbing; heat-

ing system; Paul J. Pels, architect, Corcoran Building, 15th and F streets N. W.

Washington, D. C.—Apartment-house.—Ben B. Bradford, 1336 New York avenue N. W., has commissioned Wood, Donn & Deming, architects, 808 17th street N. W., to prepare plans and specifications for apartment-house to be erected at corner 21st and R streets N. W.; five stories; brick with stone and stucco trimmings; electric wiring and fixtures; sanitary plumbing; heating system; elevator.

Washington, D. C.—Hospital.—The Bureau of Medicine and Surgery of the Navy Department has commissioned Wood, Donn & Deming, architects, 808 17th street N. W., to prepare plans and specifications for the construction of two additional wings to main hospital building at 25th and G streets N. W.; each wing two stories, 30x75 feet; brick with stone trimmings; fireproof construction; slate roof; electric wiring and fixtures; sanitary plumbing; heating system.

Washington, D. C.—Engine-house.—Henry A. F. Macfarland, Henry L. West and John Biddle, District Commissioners, will receive bids until April 13 for constructing chemical engine-house on Minnesota avenue, between Hunt place and Sherwood avenue, N. E., Hillbrook, D. C. Plans and specifications and other information may be obtained from Room 43 Municipal Building, Louisiana avenue.

Water Valley, Miss.—School Building.—Building Committee will receive plans and specifications until April 15 for new school building, cost not to exceed \$30,000, accommodating 1000 pupils; building to be of brick and modern in arrangement; usual rights reserved. Address D. R. Wagner, chairman.

Wheeling, W. Va.—Hotel.—Stratford Magnesia Springs Co., lately incorporated, has just completed 100-room hotel, and now is equipping electric-light plant; cost of same approximately \$100,000; engineer, W. P. Keyser; secretary and treasurer, John W. Adams. Address National Exchange Bank Building.

Williamsport, Md.—Lodge Building.—Potomac Lodge, K. of P., has accepted plans by C. Victor Koehler, Hagerstown, Md., for castle hall to be built at a cost of between \$10,000 and \$15,000; first floor to be storeroom, 36x56 feet, with plate-glass window 10x16 feet; stairway six and a half feet wide; second floor to be theater and public hall, with seating capacity of 550; third floor to be lodge room; front to be colonial in design and constructed of pressed brick with graystone trimmings.

Winder, Ga.—Church.—First Baptist Church, with S. W. Arnold chairman of building committee, has awarded contract for new edifice to Winder Lumber Co.; building to be 64x83 feet; steam heating; electric lighting; cost \$12,500.

Winnfield, La.—Hotel.—Plans are being prepared for hotel to cost \$40,000; elevator; complete laundry and refrigerating arrangements; electrical equipment, to operate with gasoline motive power; tiled flooring, marble wainscoting and fresco work; hot-water heat; architects, Drago & Smith, 405 Cosmopolitan Bank Building, New Orleans, La.

Winona, Miss.—School Building.—Bids will be received until April 14 by Board of Trustees of Winona Public School for repairing and remodeling schoolhouse for white children. Plans are on file at office of Dr. Z. J. Scott and office of architects, Andrew Johnson & Sons, Sardinia, Miss. Bids must be sealed and addressed to G. A. McLean, secretary Board of Trustees, Winona, Miss., and be accompanied by certified check for \$500, payable to E. G. Whitehead, City Treasurer; usual rights reserved.

Winston-Salem, N. C.—Residence.—E. C. Bowman & Co. has contract for erection of 10-room residence; frame; slate roof; electric and gas lighting; cost \$7500; architects, Hook & Rogers.

Atlanta Utility Works' Announcement.

The Atlanta Utility Works announces that Walter D. Nash of Atlanta, Ga., is now an active member of the firm as vice-president and mechanical engineer. Mr. Nash is a technical graduate in mechanical engineering with large experience, and has for the past six years devoted his attention to oil milling as a specialty, having occupied the position of district engineer of the Southern Cotton Oil Co.'s largest district—the Atlanta, comprising 23 oil mills in Georgia. He will be in active charge of the engineering department and shops and will be consulting engineer for oil mills especially and general engineering. The Atlanta Utility Works designs and manufactures improved cotton-oil machinery. Offices at 54 West Mitchell street, Atlanta.

RAILROAD CONSTRUCTION.

Railways.

Americus, Ga.—Crawford Whentley, president of the Western & Gulf Railway, is reported as saying that the company is negotiating with contractors to build its proposed line from Americus to Hawkinsville, Ga., and construction is expected to begin this spring.

Azen, Va.—Reported that the White Top Railroad, 11 miles long, chartered last fall, has been completed to connect Azen with Taylors Valley on the Virginia-Carolina Railway. M. L. Hassinger of the Hassinger Lumber Co. is president.

Baltimore, Md.—The Baltimore & Ohio Railroad proposes to build a produce yard on Howard street between Lee and Hill streets. D. D. Carothers is chief engineer.

Bessemer, Ala.—An official of the Mobile & Ohio Railroad writes the Manufacturers' Record denying the press report that the company proposes to build an extension from Blocton to Birmingham and Bessemer.

Birmingham, Ala.—The Alabama Terminal Railroad Co. has been incorporated to build a line about 10 miles long from Birmingham to Gate City, Ala. The officers are Lee C. Bradley, president and treasurer; M. M. Baldwin, vice-president; A. W. Brazelton, secretary.

Brunswick, Md.—John S. Mallette, chief engineer of the Brunswick & Middletown Electric Railway Co., is reported as saying that contract will probably be let in June for the proposed line from Brunswick via Petersburg, Burkittsville and Broad Run to Middletown, Md., 15 miles. Preliminary survey has been made and much of the right of way secured.

Carrizo Springs, Texas.—The proposed line of the South Texas & Gulf Railway from Artesia to Carrizo Springs is about 40 miles long, and the extension which would be built from Carrizo Springs to Uvalde, Texas, would be 58 miles long. George W. Drumheller is chief engineer at San Antonio, Texas.

Corinth, Miss.—A letter to the Manufacturers' Record says that local and foreign capitalists are working on a plan to build an electric railway from Corinth to Shiloh, Miss., 25 miles. A. M. Strong may be able to give information.

Crockett, Texas.—Plans are under way to build a railroad from Crockett westward, probably to Waco. Swift & Co. of Chicago are said to be interested. Later: The firm writes the Manufacturers' Record denying the report that they are interested, and saying that they never heard of the project.

Denison, Texas.—An officer of the Missouri, Kansas & Texas Railway writes the Manufacturers' Record that the extension of the Denison, Bonham & New Orleans Railway from Havenna eastward will not be built by his company. Ed Steger, president of the line in question, at Bonham, Texas, may give information. This denies a recent press report.

Dermott, Ark.—The Fee-Crayton Hardwood Lumber Co., which recently purchased the mill of the Windsor Lumber Co. at Dermott, is reported to be building five miles of railroad. Edward F. Fee is president.

Dyersburg, Tenn.—The Dyersburg Northern Railroad proposes to raise grades on four miles of its line along the Obion river, and bids will be opened on April 10. R. M. Hall is president and R. L. Kittle is general superintendent.

Chattanooga, Tenn.—An official of the Southern Railway writes the Manufacturers' Record that the proposed change of line recently reported from that city was decided upon several months ago and contract let to W. J. Oliver of Knoxville. The change consists of a connecting link 1.86 miles long from the tunnel through Lookout Mountain to the Chattanooga Belt Railway, which will be used into Chattanooga. It will be double-tracked.

Elkin, N. C.—The Elkin & Alleghany Railroad, chartered by the Legislature, proposes to build a line from Elkin to Sparta, N. C., and thence to Marion, Va., on the Norfolk & Western Railway.

Frankfort, Ky.—The Louisville & Nashville Railroad has, it is reported, made a survey for a line from Frankfort to Versailles, Ky., about 15 miles. W. A. Courtenay is chief engineer at Louisville, Ky.

Frederick, Md.—The Washington, Frederick & Gettysburg Railway Co. has let a grading contract to Charles Klipp for its track in Frederick. Outside of the city three miles of grade is completed and track-laying will soon begin.

Greenville, S. C.—The Greenville & Knoxville Railroad Co. has completed its line as far as Travelers' Rest, and will, it is reported,

begin operating to that point immediately.

Gulfport, Miss.—Reported that survey has begun for the Mississippi Southern Railroad from Gulfport via Laurel to West Point, Miss. T. H. Oden of Laurel, Miss., and others are interested.

Gulfport, Miss.—Reported that contract has been let by the Edward Hines Lumber Co. for the proposed Gulfport & Northwestern Railroad from Gulfport to Poplarville, Miss.

Henderson, N. C.—Mr. G. W. Marrow, Bullock, N. C., writes the Manufacturers' Record that the Roanoke River Railway Co. bought out the North Carolina Connecting Railroad Co. and proposes to begin construction immediately. The directors are G. W. Marrow, president; W. E. Trenchard, vice-president and general manager; T. G. Trenchard, secretary; J. T. Marrow, treasurer and auditor; V. C. Tompkins and others.

Hereford, Texas.—Reported that John P. Slaton of Hereford, Texas, will file at Austin the charter for the Panhandle Short Line, which proposes to build a railroad about 200 miles long from Hereford to Stanton, Texas.

Houston, Texas.—The San Antonio & Arkansas Pass Railway will, it is reported, enlarge its yards and freight facilities in Houston. W. M. Hobbs is vice-president and general manager at San Antonio, Texas.

Houston, Texas.—The Gulf, Colorado & Santa Fe Railway will, it is reported, increase the size and facilities of its terminals in Houston. C. F. W. Felt is chief engineer at Galveston, Texas.

Johnson Stand, Tenn.—The Monterey Coal Co. of Monterey, Tenn., proposes to build a railroad from that point to connect with the Southern Railway at Johnson Stand. Robert H. Treat of Washington, D. C., and Gen. John T. Wilder are reported interested.

Leslie, Ark.—The Williams Cooperage Co. is pushing construction on its railroad from Leslie, having completed about nine miles, and will build four miles more.

Middleton, Tenn.—The proposed extension of the Mobile, Jackson & Kansas City Railroad would, it is said, be 150 miles long from Middleton to Joppa, Ill., or 165 miles long if to Paducah, Ky. H. S. Jones is general superintendent at Mobile, Ala.

Monett, Mo.—Charles D. Bennett, chief engineer of the St. Louis & Oklahoma Southern Railway at St. Louis, Mo., is quoted as saying that while contracts have been awarded, the contractors will be announced later. The line will be about 112 miles long from Monett, Mo., via Pineville, Mo., and Tahlequah, Ind., to Muskogee, I. T. Survey is under way and capital is secured. James A. Sturges of Pineville, Mo., is president.

Nashville, Ga.—The Georgia & Florida Railway is reported to be closing up deals for right of way, and construction will begin between Nashville and Valdosta within a month. A. E. Hess is chief engineer and J. M. Turner is general manager at Augusta, Ga.

Natchitoches, La.—Capt. Charles Teal, E. S. Watson and H. L. Graham are reported to be working on a plan to build a railroad from Natchitoches to Colfax, La., 60 miles, under the name of the Natchitoches East & West Railway Co.

Owensboro, Ky.—President A. H. Kennedy of the Owensboro & Rockport Bridge & Terminal Co. informs the Manufacturers' Record that the company will build 10 miles of line and terminals; total cost about \$10,000,000. W. D. McLaughlin, Evansville, Ind., is engineer. Mr. Kennedy's address is Rockport, Ind.

Onley, Va.—The Accomac Traction & Power Co. is the name chosen for the corporation which will build the proposed electric railway. At present line will be built from Onancock via Tasley to Accomac Court-house and thence to Battle Point on Matomkin bay. Spencer F. Rogers is president and T. W. Taylor of Onancock is secretary.

Pearlsburg, Va.—Reported that an incline railroad is to be built across Wolf Creek Mountain, starting from Talmash, on the New River, Holston & Western Railroad. Those interested are Martin Williams and M. P. Farrier of Pearlsburg, Va.; Joel Beckwith of Parkersburg, W. Va., and the Biggs-Wilson Lumber Co. of Huntington, W. Va.

Pensacola, Fla.—Engineers are reported to have arrived to make a survey for the proposed Pensacola & Northeastern Railroad from Pensacola to Andalusia, Ala., 70 miles. Offices have been established in Pensacola. The promoters also propose to build the Pensacola, Alabama & Western to Meridian, Miss., and Memphis, Tenn. Among those interested are J. L. Miller, C. M. Gordon, John E. Habach and W. F. Scott of New York.

Pine Bluff, Ark.—J. M. Parker of the Arkansas, Louisiana & Gulf Railroad Co. is reported as saying that location survey will begin immediately for the proposed line from Pine Bluff to Crossett and Hamburg, Ark., and actual work will begin in April. The line is finally to run to Monroe, La. Mr. Parker's address is Colorado Springs, Col.

Reidsville, N. C.—The proposed Rockingham & Caswell Railroad, which was granted a charter by the Legislature, will be about 30 miles long, from Stokesdale, or a point near there, on the Norfolk & Western Railway, to Leakesville, Spray, Wentworth, Reidsville, Yanceyville and Roxboro; principal office at Reidsville. The incorporators are W. R. Walker, J. S. McAllister, B. Frank Mebane of Spray, D. F. King of Leakesville, Samuel Ellington, A. J. Whittemore, Reubin D. Reid of Wentworth, R. T. Williams, Hugh R. Scott, P. B. Johnston, P. W. Gilde- well, J. R. Webster, John T. Oliver, H. A. Hayes, R. L. Watt, J. F. Watlington of Reidsville, R. L. Mitchell, F. W. Brown and Julius Johnston of Yanceyville.

Roscoe, Texas.—Marlin Duvall, chief engineer of the Roscoe, Snider & Pacific Railway at Snider, Texas, is quoted as saying that tracklaying will probably start in May. Line is to be completed from Roscoe to Snider, 31 miles, by July. Surveys have been made from Roscoe to Griffiths Canyon, 53 miles. N. T. Reed of Abilene, Texas, has the contract from Roscoe to Snider. F. W. James of Abilene, Texas, is president.

Shawnee, O. T.—The Midland Valley Railroad is reported to have begun construction on its extension from Jenks, I. T., to Shawnee, 100 miles. C. Kaighn is chief engineer at Muskogee, I. T.

St. Louis, Mo.—The McKinley Interurban Railway system of Champaign, Ill., proposes to build an extensive terminal line into St. Louis at a total cost of about \$5,000,000. Wm. B. McKinley of Champaign, Ill., is president. It is further reported that the company proposes to also build a line from St. Louis to Kansas City. R. D. Smith is general manager.

Velasco, Texas.—Felix Jackson, the new general manager of the Velasco, Brazos & Northern Railroad, is reported as saying that the proposed improvements and extension will be made. Among those interested are Morgan Jones of Fort Worth, Texas, president of the Wichita Valley Railway; J. B. Wilson of Dallas, Texas; D. T. Bomar of Fort Worth, D. J. Grigsby, E. S. Hughes of Abilene, Texas, and others.

Victoria, Texas.—Hipp & Co., contractors, have, it is reported, resumed construction on the Port O'Connor, Rio Grande & Northern Railroad.

Wilmington, N. C.—The Seaboard Air Line, it is reported, will reconstruct its line between Wilmington and Hamlet, N. C. W. L. Seddon is chief engineer at Norfolk, Va.

Winnboro, Texas.—Mr. M. D. Carlock writes the Manufacturers' Record that the Texas Railroad Co. proposes to build a line from Winnboro to Mount Vernon, Texas, 17 miles. The directors are M. D. Carlock, C. H. Morris, J. M. Lankford, George D. Hurdle, J. H. Rhodes, John McMillan and T. G. Carlock. Officers have not yet been elected.

Wisner, La.—The Smith-St. John Lumber Co. has been organized and proposes to build about 15 miles of railroad. R. M. Smith & Co., 601-605 Union Trust Building, Parkersburg, W. Va., and M. A. St. John of Seymour, Ind., are interested.

Winston-Salem, N. C.—The Norfolk & Western Railway is to shortly begin enlarging its yard in Winston-Salem at an expenditure of about \$35,000 to \$40,000. C. S. Churchill is chief engineer at Roanoke, Va.

Woodward, O. T.—Reported that active construction has begun on the Canadian Valley Railway north and south of Woodward. H. A. Ensign, J. E. Jennison and others are reported interested.

Street Railways.

Americus, Ga.—Reported that a vote has been cast in favor of the city making arrangements for a street railway line four miles long. W. A. Dodson and associates of Americus having the contract.

Arcadia, Fla.—A company has been organized, it is reported, with \$15,000 capital to build a street railway in Arcadia; charter granted to W. B. Clay of Arcadia for electric line.

Baltimore, Md.—The United Railways & Electric Co. is expected to begin work within a week or so on one or two of its proposed extensions into the country. William A. House is president.

Elkins, W. Va.—J. F. McSpatten and W. E. Taylor of Pittsburg are reported working on

the plan for the proposed Elkins Electric Railway. It is said they also contemplate an electric railway via Belington and Philippi to Grafton, and perhaps to Huttonsville, W. Va.

Houston, Texas.—Reported that the Houston Electric Co. will build an extension to Harrisburg. David Daly is manager.

Lynchburg, Va.—The city of Lynchburg will sell a street-railway franchise on April 4 to cover an extension from the line of the Lynchburg Traction & Light Co. on Wise street and along 14th and other streets.

Richmond, Va.—The Richmond Traction Co., it is reported, will build a double-track extension from Broad and Robinson streets along Broad street to the boulevard and thence northward to the city limits. It will be double track.

Savannah, Ga.—The Savannah Electric Co. has applied to the City Council for permission to make two extensions.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted

Alcohol Machinery.—San Antonio Paste Works, San Antonio, Texas, wants prices and information on plant for manufacturing industrial alcohol.

Alfalfa Mill.—H. J. Cullen, Wellston, O. T., wants alfalfa-mill machinery.

Artesian Well.—See "Water-pressure System."

Belting.—Oyangueren y Guevara, Barroeta Aldmar 2, pral, Billao, Spain, wants to correspond with manufacturers of "Balata" belting.

Blowers.—Wanted—Fan for blowing sawdust from a 30,000 capacity hardwood sawmill; sawdust to be blown 100 feet, with one elbow. Address Peacock's Iron Works, Selma, Ala.

Boiler.—Geo. D. Cook, Berclair, Texas, wants 100-horse-power boiler.

Boiler.—Delmarvia Lumber Co., Boulevard, Va., wants prices on 60-horse-power boiler.

Bottlers' Supplies.—Sandersville Bottling Works, Sandersville, Ga., wants prices on bottlers' shipping crates, bottles and sundries.

Brick Machinery.—S. L. Brannan, McDade, Texas, wants prices on brick machinery.

Brick Machinery.—Wanted—25,000 per day brick outfit, including pug mill, brick machine and automatic cutter, trucks etc. Address Storall Brick Co., Storall, N. C.

Bridge Construction.—County Commissioners of Escambia County will receive bids until June 4 for erection of steel bridge across Little Bayou, near Pensacola, Fla., in accordance with plans and specifications on file in office of A. M. McMillan, clerk; usual rights reserved.

Building Materials.—C. V. Koehler, 121 West Washington street, Hagerstown, Md., will buy iron stirrups.

Building Materials.—J. F. McKnight, Hallettsville, Texas, will purchase enameled brick, plate and prismatic glass, tile, wrought-iron, steel, sheet metal, steel ceiling, hard plaster, rubberoid roofing, No. 12 ounce duck, about 4000 square feet; wallpaper, factory work, hand-power freight elevator, etc.

Building Materials.—W. Leon Clark, architect, Alexandria, Va., wants prices on building materials for young people's building costing \$15,000.

Building Materials.—W. A. Liller, Keyser, W. Va., wants prices on V-joint Southern pine ceiling; one-inch; best quality.

Building Materials.—P. H. Mullins, secretary Roanoke Building & Investment Co., Inc., Roanoke, Va., wants prices on building materials of all kinds.

Canning-factory Equipment.—Charles H. Baxter, Corpus Christi, Texas, wants equipment for canning factory.

Canning Machinery.—Penick & Ford, Shreveport, La., want to correspond with manufacturers of machinery for canning molasses.

Cold-storage Plant.—Mexican Market Co., 426 El Paso street, El Paso, Texas, wants bids on 20-carload cold-storage plant.

Concrete-block Machinery.—S. L. Brannan, McAdams, Texas, wants prices on concrete-block machinery.

Concrete Machinery.—Ramsaur Bros., Shelby, N. C., want equipment for concrete-block plant.

Concrete Machinery.—Magnus Hellstrom, care of A. Hansson, Linnegatan 12, Stockholm, Sweden, wants catalogues and prices of concrete-construction machinery.

Concrete Work.—King Lumber Co., Charlottesville, Va., wants bids on reinforced-concrete work.

Construction Work.—Sealed proposals for raising of grades across four miles of the Obion river bottom on Dyersburg Northern Railroad, between Lenox and Ridgeley, Tenn., will be received until April 10 at office of R. M. Hall, president, Dyersburg, Tenn. Profiles and specifications may be seen at office of R. L. Little, general superintendent; usual rights reserved.

Conveying Machinery.—Magnus Hellstrom, care of A. Hansson, Linnegatan 12, Stockholm, Sweden, wants catalogues and prices on machinery for handling earth and stone.

Conveyors.—Penick & Ford, Shreveport, La., want to correspond with makers of conveyors for molasses cannery.

Cotton Rope Machinery.—Dallas Cement, Stone & Pipe Manufacturing Co., Dallas, Texas, wants addresses of makers of machinery for manufacturing twine and rope.

Cotton-waste Machinery.—Western Machinery & Stores Co., Sitaram Building, Bombay, India, wants addresses of makers of cotton-waste machinery suitable for Indian cotton; also machinery for spinning and weaving mills; also of repair-shop equipment for cotton factories; company invites complete details, as it is to equip a mill now being constructed; catalogues, illustrations, prices, discounts, etc., are wanted.

Crates.—See "Bottlers' Supplies."

Crematory.—Sealed proposals, accompanied by plans and specifications, will be received by Julian Kendrick, City Engineer, Birmingham, Ala., until April 17 for erecting 60 and 100-ton garbage-disposal plants. Instructions to bidders may be obtained from City Engineer; usual rights reserved.

Crushing Plant, etc.—Proposals will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until April 19 for furnishing rock-crushing plant, engine, dynamite and blasting material, Portland cement, car wheels, shafting, pulleys, Babbitt metal, wire rope, hose, packing, steam-pressure recorders, drafting machines, pipe tools, twist drills, forges, grindstones, blow-off and throttle valves, injectors, wire netting, belt lacing, etc. Blanks and general information relating to Circular No. 359 may be obtained from this office or offices of assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco, and 419 Chamber of Commerce Building, Tacoma; also from Chief Quartermaster, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind., and Chief Quartermaster, Atlanta. D. W. Ross, general purchasing officer.

Dredging.—The Baltimore (Md.) Board of Awards, City Hall, will receive bids until April 3 for dredging during 1907. Specifications may be obtained from N. H. Hutton, Harbor Engineer, City Hall.

Dredging.—Atchafalaya Bay Ship Channel Co., Morgan City, La., will receive bids on 14-foot channel, 100 feet wide, 1½ miles long; 1,250,000 cubic yards of soft clay and shells to be dredged; specifications on application; E. A. Pharr, vice-president and manager.

Dumbwalters.—See "Building Materials."

Dye Works.—Manufacturers' Machinery Co., 734 Poydras street, New Orleans, La., wants catalogues and prices on complete dye works.

Electrical Equipment.—Drago & Smith, architects, 405 Cosmopolitan Bank Building, New Orleans, La., want electrical equipment for hotel, etc.

Electrical Equipment.—G. W. Aaron, superintendent Southern States Pine Product Co., Savannah, Ga., wants electrical supplies.

Electric Fans.—See "Water Motor and Fans."

Electric-light Plant.—J. L. Gibson, Bryson City, N. C., wants prices on electric-light plant.

Electric-light Plant.—Atkins Milling Co., Wirtz, Va., will need electric-light plant, including turbine wheels; current to be transmitted four miles.

Electric Motor.—Happ Bros. Company, Macon, Ga., wants five-horse-power motor.

Elevators.—Gilmer Hotel Co., Columbus, Miss., S. B. Johnston, president, wants electrical passenger elevator.

Engine.—C. H. Dunnell, Venus, Texas, wants 60-horse-power gas, gasoline or oil engine for cotton gin.

Engine.—G. N. Henson, 830 Broad street, Chattanooga, Tenn., wants second-hand Corliss engine, 18x42, standard.

Engine.—Delmarvia Lumber Co., Boulevard, Va., wants prices on 50-horse-power center-crank engine.

Engine and Boiler.—J. L. Gibson, Bryson City, N. C., wants 50-horse-power engine and boiler.

Excavating Machinery.—Magnus Hellstrom, care of A. Hansson, Linnegatan 12, Stockholm, Sweden, wants catalogues and prices on machinery for digging small canals.

Felting Equipment.—See "Mattress Machinery."

Foundry and Pipe-works Machinery.—Atlantic Pipe & Foundry Works, Atlanta, Ga., wants machinery for foundry and pipe works.

Foundry Work.—John McRave, 221 West Markham street, Little Rock, Ark., will want estimates on manufacture of center rail and wheels; new railway device for prevention of accidents.

Fuel Apparatus.—See "Sawdust Burner."

Hardware.—Hartsville Wood Manufacturing Co., Hartsville, S. C., wants prices on sash weights in carload lots.

Hardware.—E. C. Wilcox, Hazlehurst, Miss., wants prices on ball-bearing rolling-door hangers for warehouse doors.

Hardware.—P. H. Mullins, secretary Roanoke Building & Investment Co., Inc., Roanoke, Va., wants prices on hardware.

Heating Apparatus.—Gilmer Hotel Co., Columbus, Miss., S. B. Johnston, president, wants steam-heating equipment.

Heating Apparatus.—J. P. Rickman, Hendersonville, N. C., wants prices on hot-water heating equipment for 17-room residence.

Hoisting and Conveying Machinery.—Colorado Pressed Stone Co., Colorado, Texas, wants sand elevator or hoisting machine.

Hoisting Engine.—J. C. Mire Implement Co., New Orleans, La., wants simple, compact and "foolproof" three-horse-power gasoline engine for hoisting; horizontal two-cycle preferred; wants prices on lots of 25.

Ice Machinery.—M. F. Brooks, Madison, Ga., wants addresses of makers of ice machinery.

Ice Plant.—J. W. Adams, secretary Stratford Magnesia Springs Co., National Exchange Bank Building, Wheeling, W. Va., will buy ice plant for hotel.

Irrigation Equipment.—J. P. Little, Clearwater, Fla., wants prices on pump operated by gasoline engine, galvanized piping and fittings.

Laundry.—J. W. Adams, secretary Stratford Magnesia Springs Co., National Exchange Bank Building, Wheeling, W. Va., will buy laundry equipment for hotel.

Laundry Equipment.—Drago & Smith, architects, 405 Cosmopolitan Bank Building, New Orleans, La., want prices on laundry equipment.

Laundry Equipment.—John L. Ray, Albertville, Ala., wants small steam-laundry outfit complete.

Machine Tools.—Wanted: Engine lathe, 26-inch swing; second-hand, good condition. Address P. O. Box 155, Laurens, S. C.

Mattress Machinery.—Erister Ashcraft, Florence, Ala., wants addresses of manufacturers of mattress machinery and felting (cotton) equipment.

Metal Ceilings.—Hinman-Spencer Engineering & Supply Co., Athens, Ga., wants addresses of manufacturers of metal ceilings.

Novelty Manufacturers.—Joseph S. Click, Bridgewater, Va., wants addresses of novelty manufacturers.

Oil-mill Machinery.—G. N. Henson, 830 Broad street, Chattanooga, Tenn., wants second-hand oil-mill machinery, viz.: One to three standard Smith-Valle hydraulic cottonseed-oil presses, Bushnell standard cottonseed-oil press, Van Winkle standard cottonseed-oil press, Smith-Valle high-pressure hydraulic cotton-oil pump, Smith-Valle improved former, meal cooker, subheater, magnets for cotton-linter boards and two or more magnets for cottonseed hullers. The machinery must be modern and first-class in every respect and stand rigid examination by expert engineer. Price would have to be attractive.

Oil-mill Machinery.—Wright & Kendall, Palestine, Texas, wants addresses of manu-

facturers of cottonseed-oil mill machinery and supplies.

Paving.—Bids addressed to Mayor and General Council will be received at office of W. J. Campbell, City Clerk, Atlanta, Ga., until April 15 for repaving Edgewood avenue from Peachtree street to North boulevard with creosote blocks, asphalt or bitulithic pavement, approximately 24,000 square yards. Certified check of \$500 payable to W. J. Campbell must accompany each bid. Specifications will be furnished on application to M. Clayton, City Engineer; usual rights reserved.

Plumbing.—Gilmer Hotel Co., Columbus, Miss., S. B. Johnston, president, wants plumbing.

Plumbing.—Sealed proposals, in duplicate, will be received at office of Elliott Woods, superintendent United States Capitol Building and Grounds, Washington, D. C., until April 15 for furnishing all plumbing fixtures for the United States Senate Office Building. Specifications, etc., will, without request, be sent to those who have been furnished specifications for similar material for House Office Building. Bids must be accompanied by certified check or surety bond in sum of 5 per cent. of amount of bid. Contract will require approved surety bond in sum of 50 per cent. of amount of contract; usual rights reserved; James Rudolph Garfield, Secretary.

Plumbing Supplies.—Trustees of Andrews School District, Andrews, N. C., invite proposals for automatic flushing closets, to comprise five sets for girls, three sets for boys and slate urinals for boys. Proposals should be accompanied by full description, cuts or blueprints, and should name price delivered and set up at Andrews. J. Q. Barker is chairman of the board.

Pump.—Glasgow Water Co., Glasgow, Ky., G. P. Davidson, engineer, wants pump for standpipe of 100,000 gallons capacity.

Railway Rails.—Williams & Farrier, Pearisburg, Va., in the market for three miles of 16-pound relay steel rails.

Roofing.—Farmers' Union, Mena, Polk county, Arkansas, wants prices on galvanized iron and sheet-iron for roofing.

Roofing.—Neal Finkelstein, Jacksonville, Fla., wants prices on red roofing tile.

Roofing Slate.—W. A. Liller, Keyser, W. Va., wants prices on slate roof on building complete.

Sawdust Burner.—Delmarvia Lumber Co., Boulevard, Va., wants prices on sawdust burner.

Sawmill.—Delmarvia Lumber Co., Boulevard, Va., wants prices on No. 1 sawmill.

Sawmills.—L. D. Yeagan, president Battery Machinery Co., Rome, Ga., wants portable band-saw mill of 12,000 to 20,000 feet per day capacity, to be run with 20-horse-power engine.

Sawmill.—A. H. Cline, Elk Park, N. C., wants 60-inch portable band-saw mill, second-hand.

Screens.—Sealed bids in triplicate for screening two buildings will be received at office of constructing quartermaster, Capt. B. B. Hyer, Fort Myer, Va., until April 11; usual rights reserved; information on application. Envelopes containing bids should be indorsed "Proposals for Screens," addressed Capt. B. B. Hyer.

Sewerage System.—Bids will be received by Board of Commissioners at office of John D. Kelley, City Secretary, Galveston, Texas, until April 11 for construction of 8-inch, 10-inch and 12-inch vitrified-pipe sewer laterals (aggregating 21,410 feet) connecting with mains on 21st, 23d, 25th and 29th streets and Avenues J and P½, together with all appurtenances thereto, in accordance with plans on file in office of C. G. Wells, City Engineer, which can be obtained on application. Each proposal must be submitted in duplicate and accompanied by certified check, payable to order of City Treasurer, in sum of 5 per cent. of amount of said bid. Bond in sum of 50 per cent. of amount of contract will be required; usual rights reserved; H. C. Lange, Commissioner of Water-works.

Stone.—Sealed proposals for about 30,000 tons of Rip-Rap stone will be received at United States Engineer Office, Wilmington, N. C., until May 2. Information furnished on application. Joseph E. Kuhn, major of engineers.

Subway.—Bids will be received until April 15 for construction of underpass at Pryor street, Atlanta, Ga. Proposals must be accompanied by certified check of \$500. Copies of plans and specifications can be obtained from City Engineer R. M. Clayton.

Subway Construction.—Atlantic & East Coast Terminal Co. will open proposals April 20 for construction of subway under tracks, two driveways, sidewalks and space for electric cars; approaches about 470 feet long. J.

W. Richardson, engineer in charge, Jacksonville, Fla.

Tank.—See "Water-pressure System."

Terra-cotta.—Southern Material Supply Co., 552 2d street, Macon, Ga., wants addresses of terra-cotta manufacturers.

Tile Work.—See "Building Materials."

Turpentine Plant.—G. W. Aaron, superintendent Southern States Pine Product Co., Savannah, Ga., wants machinery for wood turpentine plant.

Telephone System.—Gilmer Hotel Co., Columbus, Miss., S. B. Johnston, president, wants telephone system.

Water Motor and Fans.—R. C. Beck, Louisville, N. C., wants water motor and fans complete.

Water-pressure System.—Drago & Smith, architects, 405 Cosmopolitan Bank Building, New Orleans, La., want self-contained water-pressure system.

Water-supply System.—L. E. Blanchard, Appling, Ga., wants farm water-works system, with windmill power.

Water-wheels.—Atkins Milling Co., Wirtz, Va., will need turbine wheels. (See "Electric-light Plant.")

Windmills.—See "Water-supply System."

Woodworking Machinery.—Courtney Lumber Co., Cana, N. C., F. F. Brandon, secretary, wants second-hand machine for dressing lumber.

Wire-weaving Machinery.—F. T. Parker, Box 255, Columbia, S. C., wants prices on wire-weaving machinery.

Woodworking Machinery.—J. C. Hippel, Crockett, Texas, wants machine for manufacturing plastering laths.

Woodworking Machinery.—Raleigh Iron Works Co., Raleigh, N. C., wants to represent makers of edgers, planers and other woodworking machinery.

Woodworking Machinery.—W. C. Carver, Rougemont, N. C., wants prices and full description of timber sizer and four-side planer, 26x12 inches; second-hand in good condition.

MISCELLANEOUS WANTS NOT OTHERWISE CLASSIFIED.

Building Stones.—C. V. Koehler, 121 West Washington street, Hagerstown, Md., is prepared to correspond with manufacturers of first-class building stone, preferably Baltimore manufacturers.

Burlaps.—Rainey & Rogers, New Albany, Miss., want lowest cash price on 100,000 yards of 36-inch burlaps to weigh six ounces or more to the yard, also on 20,000 yards of 42-inch burlaps; this for making ice sacks.

Cotton Sampling Paper.—Farmers and Bankers' Warehouse Building Association, Houston, Texas, wants 25,000 to 50,000 feet of cotton sampling paper in sheets of 12x18 or 20 inches. It invites samples, prices, stock weight and weight per 1000 sheets.

Fiber Manufacturers.—Dallas Cement Stone & Pipe Manufacturing Co., Dallas, Texas, wants addresses of manufacturers of different kinds of fiber.

Fly Screens.—Gilmer Hotel Co., Columbus, Miss., S. B. Johnston, president, wants prices on fly screens.

Furniture Frames.—J. W. Hollingsworth, Louisville, N. C., wants to buy wood frames for lounges, cots, couches, etc.

Kitchen Outfit.—Gilmer Hotel Co., Columbus, Miss., S. B. Johnston, president, wants kitchen outfit.

Oak Staves.—South African Supply Co., 69 Long street, Cape Town, South Africa, wants to purchase first-class white-oak staves for wine hogsheads and kegs; will consider quotations f. o. b. New York on the following: All-heart white-oak wine hogshead staves, 44x1 inch; same staves for kegs, 30x%, 24x%, 18x% and 16x% inch.

Perfected Pantry.—W. R. Sessions, Gulfport, Miss., wants addresses of manufacturers of perfected pantries.

School Furniture.—A. E. Hindman, architect, Tupelo, Miss., wants bids on seats, etc., for 10-room schoolhouse.

Stable Fixtures.—Stacy & Co., Oxford, N. C., want stable fixtures—feedboxes, watering troughs, etc.

Thermometers.—American Wood Product Co., Bailey's Mill, Ga., wants thermometers to withstand high degree of heat on retorts.

New Branch for American Bridge Co.

The American Bridge Co. of New York announces the opening of an office in the Mutual Assurance Building, corner of Main and 9th streets, Richmond, Va., on March 15. Contracting offices in 23 other American cities; general offices at 42 Broadway, New York city.

INDUSTRIAL NEWS OF INTEREST

Awarded to Southern Company.

Contract has been awarded to the Savannah (Ga.) Blow Pipe Co. for installing the exhaust system for the Atlantic Coast Line's general shops at Waycross, Ga.

Wheeler Company's New Location.

The Wheeler Condenser & Engineering Co., New York, announces the removal of its offices to the tenth floor of the new West Street Building, West and Cedar streets.

Completed New Rail Mill.

The Maryland Rail Co., Cumberland, Md., has just completed its new mill for manufacturing light steel rails, and put it in operation on March 25, doubling previous capacity.

Wants to Represent Manufacturers.

Makers of woodworking machinery, especially edgers, planers and similar machines, are invited to correspond with the Raleigh (N. C.) Iron Works Co., which desires to represent manufacturers.

To Rebuild Davis Plant.

Messrs. G. M. Davis & Son of Palatka, Fla., the well-known manufacturers of cypress tanks, will rebuild their plant and expect soon to be in a position to take care of their extensive trade. They will probably continue to be located at Palatka.

Contractors' Machinery Offered.

A quantity of contractors' machinery, including concrete mixers, steam hoisters, engines, boilers, road roller, concrete spreaders, etc., is offered for sale by court through G. Taylor Gwathmey, receiver, 611 Citizens' Bank Building, Norfolk, Va.

Manufacturing Plant Available.

A manufacturing plant at Chattanooga is offered for sale or lease. It comprises 50x100-foot building, with elevator, blow-pipe system, 100 horse-power, with belting and shafting, etc. Owner is willing to become interested in a plan to utilize the property. Address Box 923, Norfolk, Va.

Sterling Company Changes Address.

Announcement is made of the removal of the New York offices of the Sterling Blower & Pipe Manufacturing Co. (of Hartford, Conn.) from 136 Liberty street to 109 Liberty street. This company is well known for its manufacture of blowers and exhaust systems for industrial and other uses.

Will Have Foster Superheaters.

The new Government central power plant (which was referred to last week), to furnish light, heat and power to the Capitol buildings at Washington, will have 9000 horse-power of water-tube boilers equipped with Foster superheaters, manufactured by the Power Specialty Co., 111 Broadway, New York.

Machinery Opportunity for Buyers.

An opportunity for machinery buyers is seen in the offer for sale of the St. Anne Kerosene Motor Co.'s plant—factory building and site and mechanical equipment, including heat makes of machine tools, power equipment, office fixtures, etc. Bids are to be opened April 17. Detailed list and information can be obtained from Walter C. Lindley, Danville, Ill.

Good Contract for Union Company.

Contract for building a trestle incline at Baton Rouge, La., and for concrete piers and abutments for bridges across Bayou Gross Tete and Bayou Cortabieu have been awarded to the Union Bridge & Construction Co. of Kansas City, Mo. These contracts involve part of the work on the new line of the Colorado Southern, New Orleans & Pacific Railroad into New Orleans.

Boiler and Machine Equipment.

The entire equipment of a Baltimore boiler and machine shop is on the market. It comprises lathes, planers, drill presses, boilers, engines, shafting, etc. This machinery is installed in a building 55x155 feet. It can be purchased as an entirety or without the buildings. Full details of the offer and machinery can be obtained by addressing Malory Machinery Co., 310 South Charles street, Baltimore, Md.

Contemplates an European Plant.

So phenomenal has been the growth of the export business of the Pittsburg (Pa.) Automatic Vise & Tool Co. and so numerous are the inquiries from every civilized country that the company is considering the starting of a plant on the other side of the Atlantic. Such a step would not only permit a much quicker delivery of vises, but would relieve

the home plants. The vises are all thoroughly covered by patents in almost every country abroad.

Machine Plant Needing General Manager.

A Southern machine and foundry plant is at present in need of a general manager who can give effective attention to the business end of the enterprise. The shops have a competent foreman or superintendent. Men who are in a position to correspond relative to this opportunity are invited to address "Machine Shop Manager," care of the Manufacturers' Record. Their letters will be forwarded.

Mr. John Smith Hoover.

Mr. John Smith Hoover, civil engineer, died at Atlanta, Ga., on March 25. Mr. Hoover was a graduate of the Rensselaer Polytechnic Institute, Troy, N. Y., and was 37 years old. He was for a number of years county engineer for Star county, Ohio, with headquarters at Canton, but had been in the South since last August, engaged chiefly on hydraulic work in Georgia, Alabama and Mississippi for the Solomon-Norcross Company of Atlanta.

Sawyer-Man and Westinghouse.

A change of company name of more than usual interest to the trade became effective on April 1, and the Sawyer-Man Electric Co. is now known as the Westinghouse Lamp Co. Thus the name of the pioneer company in the lighting industry becomes a matter of history. It has of course been generally understood for some years past that the Sawyer-Man Electric Co. was a Westinghouse interest, and the change of name is but a logical result of changed conditions.

Mahony Steam and Hot Water Boilers.

Those about to install steam or hot-water heating systems will be interested and benefited by an investigation of the products in this line of the Mahony Heating, Ventilating & Blower Co., Troy, N. Y. This company makes both round and sectional boilers for heating purposes, and the results that have been obtained from those which have been installed in all parts of the country are in themselves testimonials of their merits. Catalogues descriptive of these boilers will be sent on request.

Appointment of New York Representative.

Mr. Ralph Templeton, formerly of Whitman-Barnes Manufacturing Co., has been appointed New York representative of the Pittsburg Automatic Vise & Tool Co. of Pittsburg, Pa., manufacturer of the "Pittsburg" double and single swivel vises. His office is located at 97 Warren street, where a large supply of all size and style vises will be carried. The New York and export trade of the country has grown to such a degree that it has been found impossible to handle it from the general office in Pittsburg.

B. M. Root Company's Expansion.

Having recently moved into its new shops, the B. M. Root Company, manufacturer of plow-handle machinery, saw benches, etc., York, Pa., is now in a position to better meet the demands for its products. The company's shipments last month were about three times as much as in any previous month in its history. Owing to an increasing demand in Illinois, Indiana, Michigan and Wisconsin, arrangements have been made with Irving M. Phillips Company, 138 Jackson boulevard, Chicago, Ill., for the exclusive sale of the Root products in those States.

Interesting Pulley Tests.

Manufacturers and others who operate plants wherein pulleys are used should become acquainted with some tests of the American pulley made at Cornell University. An extract from the report of the tests has been reprinted in leaflet form, and it contains a valuable diagram to elucidate the accompanying text. These tests were aimed at determining the efficiency of the pulley, and the results are very interesting. The American Pulley Co., 29th and Bristol streets, Philadelphia, Pa., manufactured the pulley used, and can send a copy of the leaflet to inquirers.

St. Louis Portland Cement Co. Purchased.

The St. Louis Portland Cement Co., manufacturer of the Red Ring brand Portland cement, has been purchased by the Union Sand & Material Co., Liggett Building, St. Louis, Mo. The plant will be immediately

increased in capacity to 10,000 barrels per day and will be equipped with gas engines. Producer gas will be used as fuel for the kilns, while the whole plant will be electrically driven. The manufacture of the Red Ring brand of Portland cement will be under the direct management of Chief Engineer and General Manager H. Struckmann and the sales department under A. H. Craney, Jr., as heretofore.

Minster Machine Co.

The Minster Machine Co., Minster, Ohio, has purchased the rope-transmission business, including all the patterns, formerly owned by the Kingsland-Kay-Cook Co. of St. Louis. With its previous manufacture of several specialties, including the Minster friction clutch, this accession puts the company in a position to figure on almost any sort of transmission machinery. The record of the Minster Machine Co. in its former line of work is an assurance to purchasers intending to employ rope transmission that the same skill and ability hitherto shown will be preserved in making estimates from specifications in this new department of the Minster Machine Co.

Morrill Hardware Specialties.

Mr. Charles Morrill, No. 277 Broadway, New York, manufacturer of saw sets, bench stops, nail pullers and other hardware specialties, has recently registered in the United States Patent Office his name (Morrill) as a trade-mark. Mr. Morrill has been annoyed considerably in the past by the use of his name. Although he has always had the exclusive use of the name guaranteed to him under the common law, and has proceeded to institute proceedings against these parties and compelled them to stop the use of the name, it has not been possible until the recent trade-mark acts of February 20, 1906, and May 4, 1906, to trade-mark his name. Now that this mark has been registered in the Patent Office, all parties using this mark in any manner will be vigorously prosecuted.

Universal Destructor Co.

Municipal officials and others interested in improved ways and means of disposing of and utilizing refuse of various kinds are advised to note that the Universal Destructor Co. has been organized and taken over the United States and Canada rights of Meldrum Bros. of Manchester, England. Meldrum destructors have been employed in every part of the civilized world as an efficient method of disposing of public waste, more than 100 cities and towns having them in use at present. Mr. Wm. F. Morse, sanitary engineer, New York, transfers his business to the new company and will take an active part in its conduct. He invented the Morse destructor for use by small towns, hotels, industrial plants and other institutions where waste disposal facilities are needed. The Universal Destructor Co. has its offices at 17 State street, New York, Mr. Morse, as president, being in charge.

Big Southern Roofing Contracts.

The New Orleans Roofing & Metal Works, New Orleans, La., announces that within the next few weeks it will remove to a new plant constructed on the New Orleans Terminal Co.'s tracks, where two squares will be occupied with factory, warehouse, steam plant, etc. The main building will be 319x127 feet, and will give a very large increase in the present roofing and cornice capacity of the company. In addition to the regular lines heretofore conducted a new can factory has been started at the new location with a capacity of 100,000 cans a day. The plant is equipped for turning out the finest of lithograph work and is modern in every respect. This company has recently let some very important contracts in the roofing line. One is a contract with the Great Southern Lumber Co. for five-ply built-up composite gravel roofing to cover sawmill and sheds of the Great Southern Lumber Co. at Bogalusa, aggregating 4000 squares. This contract was let in competition with many roofing companies from the Buffalo (N. Y.) office of the Great Southern Lumber Co. The New Orleans Roofing & Metal Works has also recently closed a contract for the same kind of roofing, to the amount of about 2000 squares, with the Calcasieu Lumber Co. of Lake Charles, La.

New Drykiln Patented.

Lumber-mill operators will be interested in the announcement of important improvements devised for the class of drykilns which they use. The L. Moore Drykiln Co. of Jacksonville, Fla., has the patents, and says: "The inventor, known everywhere as Drykiln Moore, has gotten four United States patents on drykilns within the past 10 years in addition to two Canadian patents, making improvements each time on the

previous patent. The last patent issued relates to the foundation or trestlework of the kiln, which supports the tracks and pipe in the kiln. It provides for iron foundations instead of wood, and it is so constructed that it can be installed almost as cheap as a wood foundation, and arranged and braced in such a substantial manner that it is impossible for it to give way or be affected by the excessive heat and required repairs, as is the case with a wood kiln. Another feature of great advantage is that it enables the mill man to have a practically fireproof kiln and secure cheaper insurance where the building is constructed of brick or artificial stone and plastered overhead, and with the iron foundation covered by the present invention it does away with the woodwork entirely. A kiln built in this way will last from 15 to 20 years, or as long as any part of the mill, and without practically any repairs having to be made."

Organization of Alberger Pump Co.

To manufacture centrifugal and turbine pumping machinery embodying novel and important improvements is the general purpose of the Alberger Pump Co., which has organized with main office at 95 Liberty street, New York. Mr. Louis B. Alberger is president, George Q. Palmer vice-president, L. W. Herson secretary-treasurer and Frederick Ray chief engineer. The company announces that its officers, management and works are identical with the Alberger Condenser Co., and that in order to provide for the increased business an addition to the shops is being built. The company's volute centrifugal pumps are especially adapted for paper mills, sugar-houses, steel mills, irrigation and drainage projects, dry-docks, filtration plants and other instances where a low pumping head exists. For higher heads, such as mine pumping, boiler feeding, water-works, fire service, etc., the company's improved multi-stage turbine pumps are offered. Surveys of plants, drawings, specifications and estimates will be furnished and contracts will be taken for installations of the machinery. The formation of the Alberger Pump Co. is of considerable importance in connection with the progress which American engineers and builders of machinery are constantly making. The new field is one of great breadth, and the company is determined to be a leader in it.

An Interesting Installation.

The new electrical engineering building of Worcester (Mass.) Polytechnic Institute, to be completed this fall, will be the largest of its kind, costing over \$125,000. It is to be equipped with a complete heating and ventilating outfit supplied by the Green Fuel Economizer Co. of Matteawan, N. Y. The general laboratory is 200x50 feet, containing three galleries—19,400 square feet of floor space and about 400,000 feet of cubic contents. Besides this, there will be in the west wing a lecture hall for seating 300 persons, above which will be standards and research laboratories, while the east wing will contain a library and offices, designing-rooms, blueprint-rooms and recitation-rooms. The equipment for supplying warm air to this space will consist of a Green cone fan, six feet in diameter, drawing the air through a tempering coil, consisting of six Green heater sections, each containing 254 linear feet of pipe. The air from the fan can pass either directly to the rooms or through another heater, consisting of four sections and containing 2540 linear feet, or part of the air may be passed one way and part the other, and the two volumes of air mixed in suitable proportions to regulate the temperature. The heaters are of a new design, being made up of straight pipe expanded into headers. By removing the covers of the latter any pipe can be inspected, cleaned or removed. As circulation is positive the heater cannot become air-bound. It is adapted for live or exhaust steam and hot or cold water.

Profit Sharing in Manufacturing.

The Republic Belting & Supply Co., Cleveland, Ohio, manufacturer of leather belting, has adopted a co-operative and profit-sharing plan, which, it is believed, will meet with much favor among its employees. Because of the large increase in its trade and the necessity for more capital, this company recently decided to increase capitalization from \$100,000 to \$300,000 and to sell \$150,000 worth of 7 per cent. preferred accumulative stock at \$5 per share. Of this \$150,000 the company allotted \$100,000 stock to its employees, allowing each to take as many shares as he was willing to pay \$1 per month per share for. The factory employees, office force and salesmen have already subscribed for \$101,000 of this stock. In addition the company has decided to give a Christmas present to employees every year, each receiving as many per cent. of his salary as he has been years in the

employ of the company. After an employee has been with the company six years he will get as a present each year 6 per cent. of his first year's salary. This profit-sharing plan applies to all employees except salesmen, who are paid a commission on all sales; commission ranges from 1/4 to 2 per cent. The company has adopted another plan of co-operation. Each sales department is managed by one person, who is chairman of a committee of three to five salesmen in his department. The general sales manager keeps in close touch with each. The manufacturing end is divided into four departments, with a foreman of each department as chairman of a committee of three to improve the quality of goods in his department or the efficiency in handling. All the foremen in time become members of a committee of which the superintendent is chairman, with the idea of developing the factory organization as a whole. This committee meets once a week for general discussion.

TRADE LITERATURE.

The Lamp in the Case.

An individual known as "Merry Mike" (and he looks his cognomen) is seen on the cover page of a timely leaflet now being distributed. He carries a suitcase, the breaking of the seal and opening of which discloses "the lamp in the case." This lamp is the Monarch, manufactured by the Monarch Electric Manufacturing Co. of Warren, Ohio.

Rex Flintkote Campaign.

An interesting narrative of the Rex Flintkote advertising campaign is presented in an illustrated pamphlet now current. Publications of various kinds have carried the advertising, and people who advertise will find some instructive facts in the pamphlet. Dealers in roofing will also see how their sales are promoted by the exploiting of Rex Flintkote in a general manner. Messrs. J. A. & W. Bird & Co. of Boston, Mass., manufacture the Rex Flintkote roofing.

Orange-Peel and Clamshell Buckets.

Parties engaged in construction work where clamshell and orange-peel buckets are required should not fail to be acquainted with the buckets manufactured by the Hayward Company, 97 to 103 Cedar street, New York. An illustrated booklet describing these buckets is now being distributed. It tells of the construction of the Hayward buckets on the interchangeable-part system and of the best materials throughout, fitted with phosphor-bronze bushings and cast-steel points, which may be replaced (when worn) without the aid of a mechanic. The efficiency and durability of these buckets have been abundantly shown in actual use.

Old-Time Tinware.

One of the most comprehensive lines of old-time tinware articles is comprised in the output of a Baltimore manufacturer, who is now distributing his new catalogue. These products are continually being further perfected as the evolution of the trade develops improved machinery and increases demands for higher class of sheet-metal goods. They include vessels, cans, pans of various kinds, pails, boilers, strainers, numerous articles for cooking purposes and general household usefulness, baths, coal and wood stoves, oil heaters, sadirons, etc. To name all the articles listed and illustrated would be a lengthy task. Dealers and users will find it to their advantage to examine the catalogue. Wm. J. H. Gluck of Baltimore, Md., is the manufacturer. He has salesrooms at 218, 220 and 222 North Gay street; factories at 1409, 1411 and 1413 East Monument street and 6, 8 and 10 Luckett alley, Baltimore, Md., and a foundry in Pennsylvania. Send for catalogue.

Waterproof Concrete and Portland Cement-Lime Mortars.

With the above title there has been issued a pamphlet containing statements, figures and illustrations which will interest people using Portland cement in concrete work or in mortars. Engineers, architects, contractors and builders are advised that the publication contains a series of tests made by the Henry S. Spackman Engineering Co., using varying mixtures of hydrated lime and Portland cement. These tests cover thoroughly the tensile strengths and permeability of a great number of mixtures, the object being to determine the most economical mixture to be used to meet any particular requirements in building construction. The use of a hydrate of lime mixed with Portland cement is becoming quite general, owing to many advantages and economies, and to the great facility with which the two elements can be exactly proportioned and mixed dry. The hydrated lime used in these tests is "Limoil," which the Charles Warner Com-

pany of Wilmington, Del., has been manufacturing as a standard commodity for the past five years, and under special process giving thorough hydration and preparation. The pamphlet is for free distribution and can be obtained from the Warner Company.

FINANCIAL NEWS.

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., April 3.

With a double holiday during the past week the business of the Baltimore stock market presented a small showing, but although trading was not large, prices showed a disposition to improve, and in several instances the record of sales displayed advances.

In the trading United Railways common sold from 11 to 11 1/4; the trust certificates at 11 1/4 to 12; the income bonds from 51 1/4 to 54; the funding 5s from 80 to 82; funding scrip at 81; United 4s from 86 to 87. Consolidated Gas, Electric Light & Power preferred changed hands at 80 1/4; Gas 6s at 103 1/4; Seaboard 4s from 75 1/4 to 75 3/4, and ex-coupon at 74; do. 10-year 5s, 97 1/2 to 98; Consolidated Cotton Duck, 10 to 11; do. preferred, 30 to 30 1/4; Cotton Duck 5s, 78 to 79; G. B. S. Brewing 1sts, 52 1/4; do. incomes, 24 to 24 1/4.

Bank stocks sold as follows: Commerce, 27; Mechanics', 27 to 26; Western, 37; Union, 118; Farmers and Merchants', 49. Mercantile Trust was traded in at 121 to 123 1/4; Fidelity & Deposit, 125.

Other securities were dealt in thus: Atlantic Coast Line common, 98 1/4 to 101 1/4; Northern Central Railway stock, 87 1/4 to 89 1/4; do. fractions, 91; Alabama Consolidated Coal & Iron preferred, 88 1/4; Houston Oil common, 7 to 7 1/4; Atlantic Coast Line 4s, 93 to 94; Atlanta Consolidated Street Railway 5s, 102; Georgia & Alabama 5s, 106; Georgia, Carolina & Northern 5s, 107 to 106 1/4; Florida Southern 4s, 90; Baltimore City 3 1/2s, 1928, 90; do. do. 1930, 90 1/4 to 90; George's Creek Coal & Iron, 75; Houston Oil preferred, 45; Augusta Railway & Electric 5s, 100 1/2; Central Railway 5s, 110; Merchants & Miners' Transportation Co., 250; Charleston & Western Carolina 5s, 107 1/4; Georgia Southern & Florida 5s, 109; City & Suburban 5s, 108; Baltimore & Ohio common, 97 1/4; Central Railway extension 5s, 109; Wilmington & Weldon 5s, 111; Baltimore Brick, 4; Maryland & Pennsylvania 4s, 92 1/4 to 92.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended April 3, 1907.

Railroad Stocks.	Par.	Bid.	Asked.
Atlanta & Charlotte.....	100	145	...
Atlantic Coast.....	100	101	102 1/2
Atlantic Coast of Connecticut.....	100	225	229
Georgia Southern & Florida.....	100	30	40
Georgia Sou. & Fla. 1st Pfd.....	100	94	96
Georgia Sou. & Fla. 2d Pfd.....	100	72 1/2	80
Seaboard Company Common.....	100	...	15 1/2
Seaboard Company 2d Pfd.....	100	35	40
United Railways & Elec. Co. 50.....	50	11 1/2	12

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	30	31 1/4
Commer. & Far. White Cfs.....	100	120	121
Commer. & Far. Blue Cfs.....	100	127 1/2	...
Farmers & Mer. Natl. Bank.....	40	49	...
Mechants' National Bank.....	100	...	174
National Bank of Baltimore.....	100	...	129
National Bank of Commerce.....	15	...	30 1/2
National Exchange Bank.....	100	182	...
National Marine Bank.....	50	38	...
National Mechanics' Bank.....	10	26	26 1/2
National Union Bank of Md.....	100	118	...

Trust, Fidelity and Casualty Stocks.

Continental Trust.....	100	200	...
Fidelity & Deposit.....	50	126	...
Maryland Casualty.....	25	55	64 1/2
Mercantile Trust & Deposit.....	50	123 1/2	125
Union Trust.....	50	58	68
U. S. Fidelity & Guaranty.....	100	105	...

Miscellaneous Stocks.

Ala. Con. Coal & Iron.....	100	...	64
Ala. Con. Coal & Iron Pfd.....	100	...	87
Con. Cotton Duck Common.....	50	10 1/2	12
Con. Cotton Duck Pfd.....	50	30 1/2	31
Con. Gas, Elec. Lt. & P. Pfd.....	79	84	...

Consolidation Coal.....	100	88	...
G. B. S. Brewing Co.....	100	5	6 1/2
George's Creek Coal.....	100	74	75
Mer. & Miners' Trans. Co.....	100	251	260
Mt. Vernon-Woodby's Cot. Duck.....	15	35	...

Railroad Bonds.

Albany & Northern 5s, 1946.....	95	...	...
Atlanta & Charlotte Ext. 4 1/2s.....	100	...	...
Central Ry. Con. 5s (Balt.), 1882.....	94	...	...
Atlantic Coast Line 4s, Cfs., 1882.....	82	88	...
Atlantic Coast Line (Conn.) 4s.....	85	...	...
Carolina Central 4s, 1949.....	96 1/2	...	...
Charleston & West. Car. 5s, 1946.....	108 1/2	110 1/4	...
Char. Col. & Aug. 2d 7s, 1910.....	102 1/2	...	...
Columbia & Greenville 1st 6s, 1916.....	110	112 1/2	...
Georgia & Alabama 5s, 1945.....	105 1/2	106	...
Georgia, Car. & North. 1st 5s, 1929.....	107	...	...
Georgia, Sou. & Fla. 1st 5s, 1945.....	108 1/2	109	...
Maryland & Pennsylvania 4s, 1951.....	91 1/2	93	...
Petersburg, Class B 6s, 1926.....	123	...	...
Piedmont & Cum. 1st 5s, 1911.....	99	103	...
Seaboard Air Line 4s, 1950.....	78	75	...
Seaboard Air Line 5s, 10-year, 1911.....	97 1/2	98 1/2	...
Western Maryland new 4s, 1952.....	76	76	...
Western North. Car. Con. 6s, 1914.....	110 1/2	...	...
Wilmington & Wel. Gold 5s, 1935.....	111	112	...

Street Railway Bonds.

Anacostia & Potomac 5s, 1949.....	100 1/2	...	...
Baltimore City Passenger 5s, 1911.....	102 1/2	...	...
Central Ry. Con. 5s (Balt.), 1882.....	110	...	...
Charleston Con. Electric 5s, 1909.....	90	92	...
City & Suburban 5s (Balt.), 1922.....	107 1/2	108 1/2	...
City & Suburban 5s (Wash.), 1948.....	100 1/2	...	...
Knoxville Traction 1st 5s, 1925.....	105 1/2	...	...
Lake Roland Elevated 5s, 1942.....	111	...	...
Lexington Railway 1st 5s, 1949.....	99	100	...
United Railways 1st 4s, 1949.....	96 1/2	87	...
United Railways Income 4s, 1949.....	53 1/2	54	...
United Railways Funding 5s.....	81	81 1/2	...

Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s.....	95	87 1/2	...
Consolidated Gas 5s, 1910.....	103 1/2	104	...
Consolidated Gas 5s, 1939.....	109 1/2	...	...
Consolidated Gas 4 1/2s.....	95	...	...
G. B. S. Brewing 1sts.....	52 1/2	53 1/2	...
G. B. S. Brewing 2d Incomes.....	22	24	...
Mt. Vernon-Woodby's Cot. Duck 5s.....	78 1/2	79	...
Mt. Vernon-Woodby's Inc. Coupons.....	60	75	...

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending April 1.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	91	94
Aiken Mfg. Co. (S. C.).....	85	88
Anderson Cotton Mills (S. C.).....	94	...
Arkwright Mills (S. C.).....	112 1/2	115
Augusta Factory (Ga.).....	80	85
Avondale Mills (Ala.).....	112	116
Belton Mills (S. C.).....	105	110
Bibb Mfg. Co. (Ga.).....	113 1/2	...
Brandon Mills (S. C.).....	138	...
Cabarrus Cot. Mills (N. C.) Pfd.....	120	120
Chadwick Mfg. Co. (N. C.) Pfd.....	100	100
Chiquola Mfg. Co. (S. C.).....	100 1/2	102 1/2
Clifton Mfg. Co. (S. C.).....	116	117 1/2
Clifton Mfg. Co. (S. C.) Pfd.....	103	103
Clinton Cotton Mills (S. C.).....	150	...
Columbus Mfg. Co. (Ga.).....	96	101
Courtenay Mfg. Co. (S. C.).....	100	100
Dallas Mfg. Co. (Ga.).....	94	94
Darlington Mfg. Co. (S. C.).....	80	82
Eagle & Phenix Mills (Ga.).....	130	135
Easley Cotton Mills (S. C.).....	132	133
Enoree Mfg. Co. (S. C.).....	130	...
Enoree Mfg. Co. (S. C.) Pfd.....	100 1/2	100 1/2
Enterprise Mfg. Co. (Ga.).....	90	94
Exposition Cotton Mills (Ga.).....	200	...
Gaffney Mfg. Co. (S. C.).....	85	86
Gainesville Cotton Mills (S. C.).....	65	68 1/2
Granby Cot. Mills (S. C.) 1st Pfd.....	50	55
Graniteville Mfg. Co. (Ga.).....	165	...
Greenwood Cotton Mills (S. C.).....	93	96
Grendel Mills (S. C.).....	115	120
Henrietta Mills (N. C.).....	175	...
King Mfg. Co., John P. (Ga.).....	100	103
Lancaster Cotton Mills (S. C.).....	105	112
Lancaster Cot. Mills (S. C.) Pfd.....	98	98 1/2
Langley Mfg. Co. (S. C.).....	82	86
Laurens Cotton Mills (S. C.).....	160	...
Limestone Mills (S. C.).....	120	...
Lockhart Mills (S. C.).....	99	100
Lockhart Mills (S. C.) Pfd.....	97	100
Louise Mills (N. C.).....	90	95
Louise Mills (N. C.) Pfd.....	98	...
Marlboro Mills (S. C.).....	165	165
Mills Mfg. Co. (S. C.).....	100	100
Mills Mfg. Co. (S. C.) Pfd.....	90	101
Monaghan Mills (S. C.).....	103	110
Monarch Cotton Mills (S. C.).....	104	105
Newberry Cotton Mills (S. C.).....	126	140
Norris Cotton Mills (S. C.).....	115	...
Olympia Cot. Mills (S. C.) Pfd.....	80	80
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	97
Orr Cotton Mills (S. C.).....	109	109
Pacolet Mfg. Co. (S. C.).....	172	174
Pacolet Mfg. Co. (S. C.) Pfd.....	101 1/2	103
Pelzer Mfg. Co. (S. C.).....	170	175
Piedmont Mfg. Co. (S. C.).....	170	177
Poe Mfg. Co. (S. C.).....	127	128
Richland Cot. Mills (S. C.) Pfd.....	62 1/2	65 1/2
Ridgely Cotton Mills (N. C.).....	99	105
Roanoke Mills (S. C.).....	124	128
Saxon Mills (S. C.).....	124	128
Sibley Mfg. Co. (Ga.).....	63	65
Spartan Mills (S. C.).....	150	...
Springstein Mills (S. C.).....	100	100
Trion Mfg. Co. (S. C.).....	130	142
Tucapau Mills (S. C.).....	185	200
Union-Buttall Cot. Mills 1st Pfd.....	70	70
Victor Mfg. Co. (S. C.).....	120	130
Warren Mfg. Co. (S. C.).....	95	98
Warren Mfg. Co. (S. C.) Pfd.....	105	...
Washington Mills (Va.).....	28	...
Washington Mills (Va.) Pfd.....	100	115
Whitney Mfg. Co. (S. C.).....	145	150
Wiscasset Mills (N. C.).....	122	125
Woodruff Cotton Mills (S. C.).....	125	127

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending April 1.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	90	93
Aetna Cotton Mills (S. C.) Pfd.....	70	...
Aiken Mfg. Co. (S. C.).....	82	89
American Spinning Co. (S. C.).....	122	125
Anderson Cotton Mills (S. C.).....	100	...
Arcadia Mills (S. C.).....	93	96
Arkwright Cotton Mills (S. C.).....	112	...
Augusta Factory (Ga.).....	80	85
Avondale Mills (Ala.).....	110	...
Belton Mills (S. C.).....	105	...
Bibb Mfg. Co. (Ga.).....	115	...
Brandon Mills (S. C.).....	128	...
Brooklyn Mills (S. C.).....	82	82
Cabarrus Cotton Mills (N. C.).....	120	...
Chadwick Mfg. Co. (N. C.) Pfd.....	108	...

Chiquola Mfg. Co. (S. C.).....	101	108
Clifton Mfg. Co. (S. C.).....	115	120
Clifton Mfg. Co. (S. C.) Pfd.....	103	103
Clinton Cotton Mills (S. C.).....	155	163
Columbus Mfg. Co. (Ga.).....	94	97
Courtenay Mfg. Co. (S. C.).....	100	100
Dallas Mfg. Co. (S. C.).....	92	96
Darlington Mfg. Co. (S. C.).....	80	85
D. E. Converse Co. (S. C.).....	112	112
Eagle & Phenix Mills (Ga.).....	128	135
Easley Cotton Mills (S. C.).....	130	136
Enoree Mfg. Co. (S. C.).....	75	82
Enoree Mfg. Co. (S. C.) Pfd.....	100	104
Enterprise Mfg. Co. (Ga.).....	92	90
Exposition Cotton Mills (Ga.).....	174	200
Gaffney Mfg. Co. (S. C.).....	90	94
Gainesville Cotton Mills (Ga.).....	45	52
Glennwood Cotton Mills (S. C.).....	102	104
Grubbs Mills (S. C.).....	94	98
Granby Cot. Mills (S. C.).....	50	50
Graniteville Mfg. Co. (S. C.).....	160	165
Greenwood Cotton Mills (S. C.).....	94	98
Grendel Mills (S. C.).....	115	115
Hartsville Cotton Mill (S. C.).....	100	103
Henrietta Mills (N. C.).....	175	175
Inman Mills (S. C.).....	98	110
King Mfg. Co., J. P. (Ga.).....	97	103
Lancaster Cotton Mills (S. C.).....	102	110
Lancaster Cot. Mills (S. C.) Pfd.....	92	96
Langley Mfg. Co. (S. C.).....	92	96
Laurens Mills (S. C.).....	152	162
Limestone Mills (S. C.).....	120	120
Lockhart Mills (S. C.).....	98	100
Lockhart Mills (S. C.) Pfd.....	95	101
Loray Cotton Mills (N. C.) Pfd.....	95	105
Louise Mills (N. C.).....	90	95
Louise Mills (N. C.) Pfd.....	102	102
Marlboro Cotton Mills (S. C.).....	90	90
Mayo Mills (N. C.).....	150	200
Mills Mfg. Co. (S. C.).....	102	102
Molokoh Mfg. Co. (S. C.).....	100	100
Monaghan Mills (S. C.).....	104	107
Monarch Cotton Mills (S. C.).....	101	105
Newberry Cotton Mills (S. C.).....	127	127
Ninety-Six Cotton Mills (S. C.).....	103	103
Norris Cotton Mills (S. C.).....	106	106
Odell Mfg. Co. (N. C.).....	90	90
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	80
Orr Cotton Mills (S. C.).....	100	103
Pacolet Mfg. Co. (S. C.).....	170	180
Pacolet Mfg. Co. (S. C.) Pfd.....	101	104
Piedmont Mfg. Co. (S. C.).....	167	175
Piedmont Mfg. Co. (S. C.) Pfd.....	100	100
Poe Mfg. Co., F. W. (S. C.).....	135	135
Raleigh Cotton Mills (N. C.).....	100	100
Richland Cotton Mills (S. C.) Pfd.....	50	50
Ronnoke Mills (N. C.).....	118	118
Saxon Mills (S. C.).....	125	125
Sibley Mfg. Co. (Ga.).....	58	63
Southern Cotton Mills (N. C.).....	149	153
Spaworth Mills (S. C.).....	149	152
Springstein Mills (S. C.).....	132	140
Trion Mfg. Co. (Ga.).....	132	140
Tucupau Mills (S. C.).....	190	192
Union-Bufallo 1st Pfd.....	72	75
Union-Bufallo 2d Pfd.....	25	30
Victor Mfg. Co. (S. C.).....	115	115
Warren Mfg. Co. (S. C.).....	97	100
Warren Mfg. Co. (S. C.) Pfd.....	106	107
Washington Mills (Va.).....	100	100
Washington Mills (Va.) Pfd.....	100	105
Whitney Mfg. Co. (S. C.).....	150	150
Wilcasnett Mills (N. C.).....	119	119
Woodruff Cotton Mills (S. C.).....	125	130

counts, \$2,632,441; due from banks and bankers, \$1,182,167; cash in vault, \$428,669; capital stock, \$500,000; surplus, \$250,000; undivided profits, \$40,487; due to banks and bankers, \$527,020; individual deposits, \$3,969,788; total assets, \$4,760,375. Arthur W. Smith is president; Tom O. Smith, vice-president; W. H. Manly, cashier; Benson Cain, C. D. Cotten and E. W. Finch, assistant cashiers, and Chappell Cory, secretary.

The Citizens' Bank of Henderson, N. C., reports at close of business March 22, 1907, loans and discounts, \$392,072; stocks and bonds, \$29,461; cash on hand and due from banks, \$172,363; capital stock paid in, \$100,000; surplus and profits, \$46,144; deposits, \$455,440; total resources, \$607,912. J. B. Owen is president, A. C. Zollicoffer vice-president and Wm. A. Hunt cashier.

The First National Bank of G. stonia, N. C., reports at close of business March 22, 1907, loans and discounts, \$4,064; total cash, \$70,039; capital, \$100,000; surplus, \$20,000; undivided profits (net), \$7156; total deposits, \$366,004; total resources, \$709,161. L. L. Jenkins is president, R. R. Ray vice-president, S. N. Boyce cashier, M. T. Wilson assistant cashier and L. C. Pegram teller.

The Commercial National Bank of Houston, Texas, reports at close of business March 22, 1907, loans and discounts, \$3,622,643; due from United States Treasurer, \$15,000; cash on hand and sight exchange, \$2,234,816; capital, \$300,000; surplus, \$500,000; undivided profits (net), \$87,063; circulation, \$251,100; total deposits, \$5,384,295; total resources, \$6,522,459. W. B. Chew is president, H. R. Eldridge, Jas. A. Baker, Jr., Thornwell Fay, John M. Dorrance vice-presidents, B. D. Harris cashier and George L. Price and P. J. Evershade assistant cashiers.

The Calcasieu National Bank of Lake Charles, La., reports March 22, 1907, loans and discounts, \$1,799,449; stocks, securities, etc., \$25,654; cash and sight exchange, \$449,740; capital stock, \$150,000; surplus, \$100,000; undivided profits (net), \$56,466; circulation, \$75,000; deposits, \$2,089,258; total resources, \$2,479,731. H. C. Drew is president, Geo. Horridge and J. A. Bell vice-presidents, Frank Roberts cashier, E. N. Hazzard and S. Arthur Knapp assistant cashiers.

The Frost National Bank of San Antonio at San Antonio, Texas, reports March 22, 1907, loans and discounts, \$2,586,772; cash, \$1,245,380; capital stock paid in, \$500,000; surplus and undivided profits, \$160,839; circulation, \$495,800; deposits, \$3,276,512; total resources, \$4,433,152. T. C. Frost is president, J. T. Woodhull vice-president and Ned McIlhenny cashier.

The National Bank of Commerce of San Antonio, Texas, reports March 22, 1907, loans and discounts, \$1,431,540; cash and due from banks, \$930,881; capital stock, \$300,000; surplus, \$100,000; undivided profits, \$11,656; circulation, \$223,300; deposits, \$1,971,215; total resources, \$2,606,171. J. P. Barclay is president, R. L. Ball vice-president, J. M. Bennett, Jr., and A. L. C. Magruder assistant cashiers.

New Corporations.

Reports state that a new national bank is to be established at Savannah, Ga.

A \$25,000 bank is reported organized at Winthrop, Ark., with D. A. Rimes, president, and John Rhyne, cashier.

A new bank with \$20,000 capital is being organized at Midway, Ky., W. C. Greening and J. T. Wash being among those interested.

A bank with \$300,000 capital is being organized at Shreveport, La. by S. J. Snook, cashier of the Capital City Bank of Jackson, Miss.

The Citizens' State Bank is reported incorporated at Ninagua, Mo., with \$10,000 capital by J. C. Grizzell and others.

Reports state that a bank is to be established at Cusseta, Ga., with John Stephens as president and C. C. Minter and R. L. Harp vice-presidents.

The First State Bank of Hallet, O. T., capital \$10,000, has been incorporated by G. W. Sutton, J. B. Myers and W. H. Boles, all of Cleveland.

It is reported that Fox Henderson, president of the Farmers and Merchants' Bank of Troy, Ala., contemplates establishing a national bank at Huntsville, Ala.

The First State Bank of Quitman, Texas, has been incorporated with \$15,000 capital by W. M. Lloyd, B. J. Harris, A. G. Wright, C. J. Smart and J. H. Rhodes.

The Inter-Southern Life Insurance Co. of Louisville, Ky., capital \$250,000, has been authorized to begin business. John H. Leathers is president, Ben T. Head cashier.

The First National Bank of Lorena, Texas, has been authorized to begin business with \$30,000 capital; E. Rotan, president; Ed. McCulloph, vice-president; L. J. Dodson, cashier.

The Farmers and Merchants Bank of Eschite, O. T., has been incorporated with \$10,000 capital by Roy C. Smith and W. P. Smith of Cache and F. M. English of Lawton.

It is reported that a new bank is to be established at Gorman, W. Va., M. A. Patrick and Charles Vossler of Maysville, being the promoters. Charter is said to have been granted.

A clearing house has been organized at Montgomery, Ala., with the following officers: President, A. M. Baldwin; vice-president, Michael Cody; secretary and treasurer, A. Joshua Jones.

Application for a charter for the Investors' Improvement Co. of Savannah, Ga., capital \$5000 to \$200,000, has been made by John Stahmer, C. J. Konnemann and Fred Wessels, Jr., all of Savannah.

The Royal Loan & Investment Co. of Baltimore, Md., has been incorporated with \$5000 capital by William J. Mesner, Joseph L. Smith, Edgar M. Goldsmith, Isaac Wheatfield and Thomas F. Johnson.

The Marion State Bank has been chartered at Marion, La., with \$12,500 capital. The stockholders are J. H. Roark, B. B. Thomas, O. H. Thompson, L. G. Everett, J. L. Hopkins, B. L. Edwards and J. D. Crow.

The First National Bank of Tupelo, I. T., capital \$25,000 has been organized with C. M. Witter, president; R. T. Breedlove, vice-president; J. F. Floyd, cashier. This is a conversion of the State Bank of Tupelo.

The Gaylesville Bank, with \$12,500 capital, is being organized at Gaylesville, Ala., with A. B. Russell, president; J. R. Henderson, vice-president, and J. T. Webb, J. C. Chestnut and A. D. Hudson, directors.

Reports state the Farmers and Merchants Bank of Chattanooga, Tenn., will begin business about April 20. C. R. Wallace of Chattanooga and O. D. Gorman of Atlanta, Ga., are among the incorporators.

The Farmers and Merchants' Bank of Randlett, O. T., has been authorized to begin business with \$10,000 capital. The officers are H. C. Jerome, president; A. Jerome, vice-president, and George Dolinger, cashier.

The Citizens' Bank of Meeker, O. T., capital \$10,000, has been incorporated by W. A. Ames, R. P. Roope, D. S. Dawson, W. K. Bell, L. R. Neflin, W. H. Dawson, I. M. Steinbrook, J. S. Little, A. F. Johnson and W. A. Scott.

The Pawnee Trust Co. of Muskogee, I. T., has filed articles of incorporation; capital \$50,000. The incorporators and officers are H. U. Bartless, president; B. P. Norvell, vice-president, and J. Garfield Buell, secretary and treasurer.

Reports state that the Falls City National Bank of Falls City, Texas, capital \$25,000, has been authorized to begin business with J. G. Schulz, president; J. W. Moczygamba, vice-president, and F. P. Moczygamba, assistant cashier.

The Perry Banking Company of Perry, Fla., capital \$40,000, is to begin business about April 15 with the following officers: president, D. G. Mallory; vice-presidents, John McLean and Thomas B. Puckett; cashier, J. H. Scales.

The Virginia-Kentucky Insurance Corporation of Wise, Va., has been incorporated with from \$2000 to \$15,000 capital. J. E. Pearce of Pineville, Ky., is president, W. B. Fulton vice-president and E. B. McElroy treasurer, both of Wise, Va.

The City National Bank of Duncan, I. T., has been authorized to begin business with \$35,000 capital; J. W. Whiznant, president; W. S. Shears and W. L. Bumpass, vice-presidents; W. P. Fowler, cashier and D. A. Fowler, assistant cashier.

The First National Bank of Seiling, O. T., capital \$25,000, has been authorized to begin business with C. W. Fonda, president; G. D. Farwell, vice-president; C. E. Fonda, cashier. This is a conversion of the Farmers and Merchants Bank of Seiling.

The Harlem Square Greater Building and Loan Association, authorized capital \$50,000, has been incorporated at Baltimore, Md., by Harry S. Belsinger, Edward M. Newman, Eli Hollander, Myer Hollander, Maurice Robinson and Harry Hechheimer.

The Farmers' State Bank at Chappell Hill, Texas, will, it is reported, soon begin business with J. J. Shaver, president; R. K. Felder, vice-president; H. P. Perkins, cashier; directors, J. E. Rountt, J. S. Smith, H. P. Perkins, R. K. Felder, J. J. Shaver, F. W. Wood and W. B. Raysor.

The Bank of Chapin, at Chapin, S. C., capital \$10,000, has elected the following directors: J. A. Blackweider, Robert Norris and B. B. Reid of Newberry; C. P. Robinson, J. S. Wessinger and P. M. Frick of Chapin. Mr. Blackweider will be president and J. F. Honeycut cashier.

The Floyd State Bank of Hunt County has been incorporated at Floyd, Texas, with \$10,000 capital by J. W. Boyle, E. W. Harrison, W. H. James, W. M. McBride, T. O. McAdams, Ed. A. Jones and A. S. Moore. J. O. Boyle will be president, A. S. Moore vice-president and H. M. Mathews cashier.

Plans are reported being made at Laurens, S. C., to organize the Laurens Trust Co., with \$25,000 capital, among those interested being E. P. Wharton of Greensboro, N. C.; Major W. A. Watts, president of the People's Loan and Exchange Bank; Dr. H. K. Aiken, J. F. Tolbert, D. A. Davis, M. J. Owings and R. A. Cooper.

The Thirty-Sixth German-American Building Association has been incorporated at Baltimore, Md., with \$520,000 capital by William Schwarz, Louis F. Deitz, John R. Smith, John Mahr, Wm. A. Smith, Henry Kolb, Frank R. Diggs, Jacob A. Rice, Charles A. Wolf, George Gunther, Jr., Frederick Faust and Samuel K. Smith.

The Imperial Trust & Savings Co. is being organized at Spray, N. C., with \$125,000 capital. Among the stockholders are J. M. Hooper, C. E. Hubbard, J. F. Lewis, Dr. A. F. Tuttle, James T. Smith, Rev. P. H. Gwynn, J. Platt Turner, C. P. Wall, F. M. Flynn, C. T. Ross, A. D.

Ivie, Dr. J. B. Ray, P. W. Williams and Lawrence McRae.

The State Bank of Vine Grove, at Vine Grove, Ky., capital \$15,000, has organized with Dr. S. N. Willis president and Frank French vice-president. Directors, Dr. S. N. Willis, J. C. Cardwell, Taylor Nicholas, John R. Swan and R. E. Carter of Vine Grove; H. Wilson of Louisville, William Crume of Howevally and Frank French of Nall Valley.

The Wilson Insurance & Realty Co. of Wilson, N. C., recently incorporated with \$25,000 capital, has elected the following directors: J. A. Corbett, president; G. W. Stanton, vice-president; G. T. Stronach, secretary and treasurer; George Hackney, D. S. Boykin, W. W. Graves, W. L. Banks, E. P. Wharton, W. D. P. Sharp, J. C. Hales, W. S. Harris, P. N. Bridgers, F. A. Woodard, J. C. Eagles.

The First State Bank of Dawson, capital \$25,000, has been organized at Dawson, Texas with J. B. McDaniel, president; L. C. Wells and R. A. Caldwell, vice-presidents; John C. Keitt, cashier. Directors, J. B. McDaniel, L. C. Wells, J. V. Matson, M. L. Berry, B. W. D. Hill, W. N. Matthews, C. W. Akers, J. F. Sims, Mrs. Bettie Matthews, R. B. Caldwell, R. A. Caldwell, J. A. Thompson, H. Siebest and J. M. Lee.

The People's Bank & Trust Co. of Palestine, Texas, has completed its organization by electing the following directors: Frank C. Bailey, president; J. R. Cook, first vice-president; C. Roe Hall, second vice-president; George W. Burkitt, third vice-president; V. F. Dubose, cashier; Judge Ned B. Morris, Dr. J. M. Colley, H. L. Cook, P. T. Woodson, Ex-County Judge G. W. Hudson, J. M. Pool, Let Davidson, Frank Davenport and Dr. C. S. Bratton. Business is to begin about May 10.

The American Exchange Bank of Greensboro, N. C., capital \$300,000, has completed its organization by electing the following officers: E. P. Wharton, president; J. W. Scott, vice-president; R. G. Vaughn, cashier; directors, J. M. McIver, Gulf, N. C.; H. G. Chatham, Elkin, N. C., and the following from this city and county: J. C. Watkins, J. Van Lindley, Dr. J. W. Long, J. W. Scott, J. Henry Gilmer, H. T. Ham, E. E. Bain, W. C. Boren, J. M. Hendrix, A. M. Scales, T. A. Hunter, E. P. Wharton, A. W. McAllister, David White, R. G. Vaughn, J. A. Rankin, Prof. J. I. Foust, E. A. Brown, Z. V. Taylor, E. L. Sides, W. D. Mendenhall and W. H. Stone, Jr.

New Securities.

Amarillo, Texas.—The \$1900 of 5 per cent. engine-house bonds have been purchased by the State Board of Education.

Anderson, S. C.—On August 13 an election is to be held in Anderson county to vote on \$300,000 of road improvement bonds.

Arlington, Texas.—The question of issuing \$15,000 of school-building bonds of this district is being agitated, it is reported.

Asheville, N. C.—The Providence Savings Bank & Trust Co. of Cincinnati has purchased at a premium of \$978.50 the \$30,000 of 5 per cent. 30-year school bonds.

Athens, Ala.—Limestone county has voted to issue \$135,000 of 4½ per cent. 30-year road bonds.

Athens, Tenn.—The proposition to issue \$200,000 of McMinn county road bonds was defeated at the recent election.

Athens, Tenn.—A bill is reported to have been introduced in the Legislature authorizing McMinn county to issue school bonds.

[For Additional Financial News, See Pages 62 and 63.]

